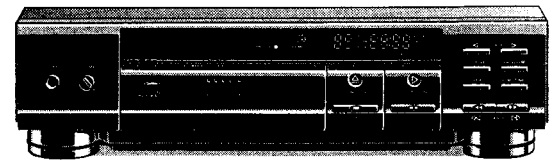
Compact disc player CD110/00B/05B

Service
Service
Service

CD130/00B/05B
CD140/00B/05B



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Service Manual

COMPACT disc DIGITAL AUDIO

CONTENTS

1 Technical specification
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Control and display panel
Variable headphone panel
I.R. remote control panel
6 Parts list
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(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

(S) Varning!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

CLASS 1
LASER PRODUCT
3122 119 03420

(SF) Varo!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviçi

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agrées, seuls habilités à réparer votre appareil en panne".

Subject to modification
4822 725 22624
Printed in The Netherlands

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PHILIPS

Published by Consumer Electronics

CS 28 193

TECHNICAL SPECIFICATIONS

General

1. Mains voltage	: 220, 240 Volt (+/– 10%)
2. Mains frequency	: 50-60 Hz
3. Mains voltage selection	: By soldering (220/240 Volt-version) By changing transformer (110/127 Volt-version)
4. Power consumption mains, operated	: 9 W
Standby	: 3 W

Line output

1. Number of channels	: 2
2. Output voltage	: 2 Vrms +/– 2 dB
3. Unbalance Left-Right	: max. 0,5 dB
4. Output resistance	: 1 kOhm
5. Amplitude linearity	: max. +/– 0,15 dB from 20 Hz to 18 kHz
6. Phase non-linearity	: max. +/– 1° from 20 Hz to 18 kHz
7. Signal to noise ratio	: min 90 dB from 20 Hz to 18 kHz
8. Dynamic range	: min 80 dB from 20 Hz to 18 kHz
9. Total harmonic distortion + noise	: min -66 dB from 20 Hz to 18 kHz
10. Intermodulation distortion	: min -66 dB from 20 Hz to 18 kHz
11. Out-band attenuation	: min 50 dB
12. Channel separation	: min 80 dB from 20 Hz to 18 kHz
13. Muting during random access	: min 90 dB from 20 Hz to 18 kHz
14. Automatic switched de-emphasis with time constants	15/50 us

Headphone

1. Output voltage	: max. 2 Vrms +/– 2 dB
2. Unbalance Left-right	: max. +/– 0,2 dB
3. Output resistance	: 150 Ohm
4. Load impedance range	: 32 Ohm to 600 Ohm
5. Output power	: max. 6 mW into 32 Ohm load max. 10 mW into 150 Ohm load max. 6 mW into 600 Ohm load
6. Signal to noise ratio	: min 90 dB from 20 Hz to 18 kHz
7. Dynamic range	: min 80 dB from 20 Hz to 18 kHz
8. Total harmonic distortion + noise	: min 66 dB from 20 Hz to 18 kHz
9. Intermodulation distortion	: min 66 dB from 20 Hz to 18 kHz
10. Channel separation	: min 65 dB from 20 Hz to 18 kHz

Dimensions ans weight

1. Apparatus tray closed	WxDxM	: 360 x 280 x 90/100 mm
2. Apparatus tray open	WxDxM	: 360 x 445 x 90/100 mm
3. Weight		: 3,3 kg

Optical read-out system

Laser type	: Semiconductor AlGaAs
Wave length	: 780 nm ± 20 nm
Light output (c.w.)	: 0,4 mW ± 0,04 mW

3. SERVICING HINTS

When the tray mechanism and CDM-unit has been disassembled the player can be prepared for measurements by bridging or activating the "laser safety switch" SK3 on the photo diode signal controller panel.

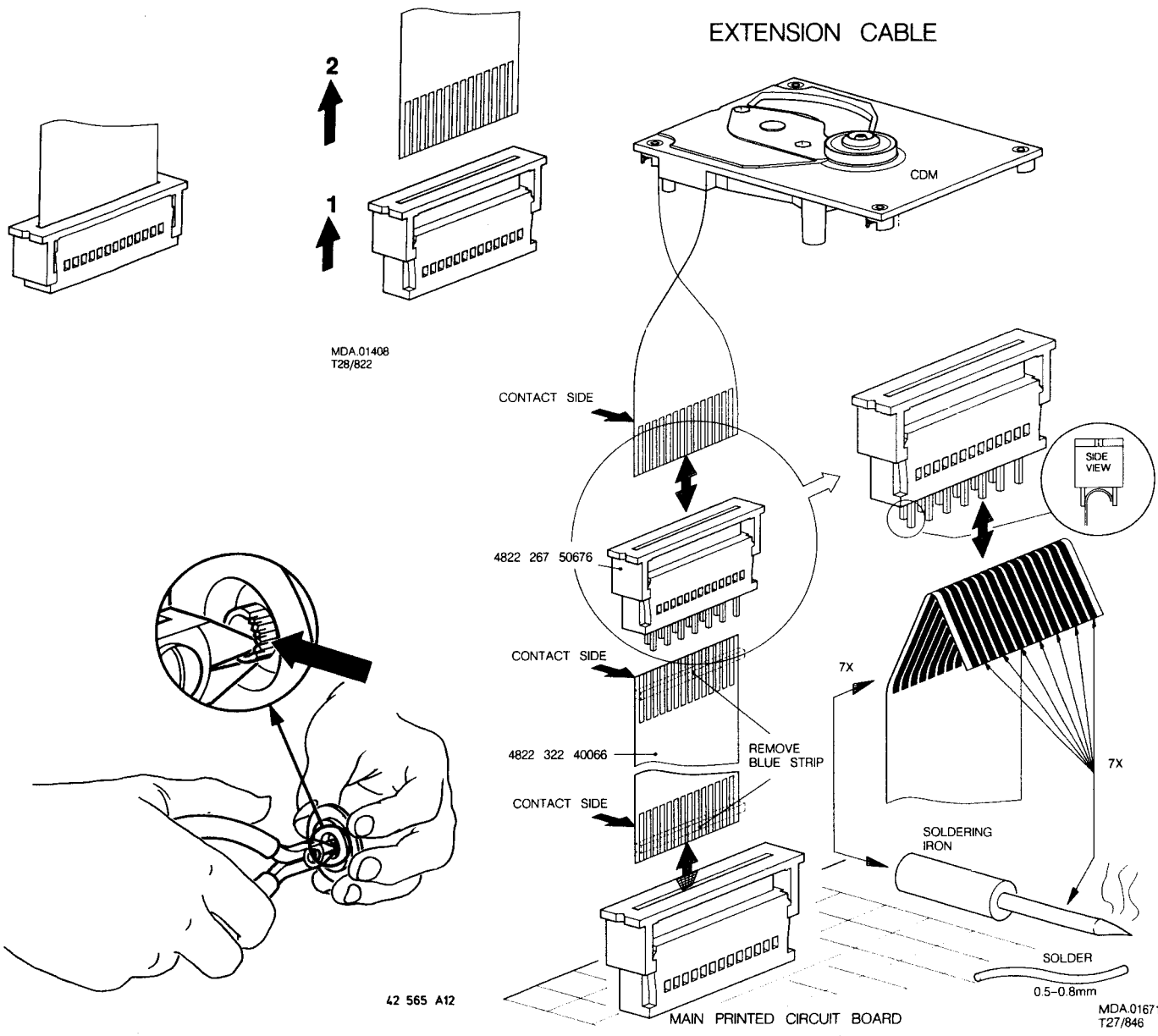
Service disc hold-down

The disc should always rest properly on the turntable. To achieve this a disc hold–down has been mounted in a bracket of the tray mechanism.
If the tray mechanism has to be disassembled for servicing, a separate disc hold-down should be used. For a service disc hold–down see the figure below.
Compose a service Disc hold-down in the following way.

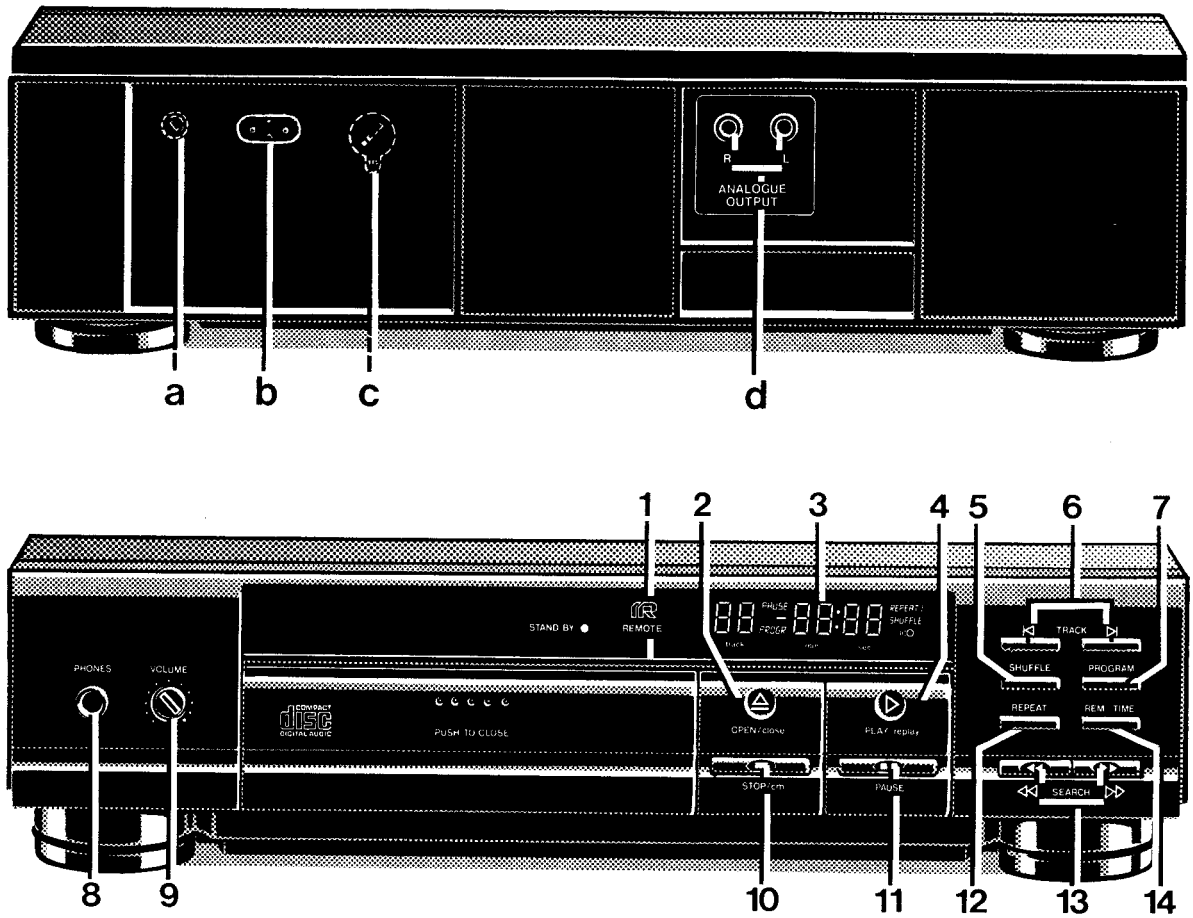
- Cut in the most inner ring of a disc holddown (4822 462 50383) with small and sharp nippers See fig. below.
- Enlarge the diameter of the innermost ring slightly with the hind part of a pencil or ballpoint, so that it jams onto the turntable with sufficient force.
- If the jamming force decreases after certain time of use, the diameter has to be enlarged with a pencil or ballpoint again.

SERVICE TOOLS

Audio signal disc	4822 397 30184
Disc without errors (test disc 5) + disc with DO errors, black spots and fingerprints (test disc 5A	4822 397 30096
Disc (65 min 1kHz)without pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204
Service cable (4p)	4822 321 21284
Service flexfoil (14p)	4822 322 40066
Service connector (14p)	4822 267 50676
Green LED CQY G11	5322 130 32182
Infra red remote control e.g.	4822 218 10324



CONTROLS AND CONNECTIONS



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OPERATION

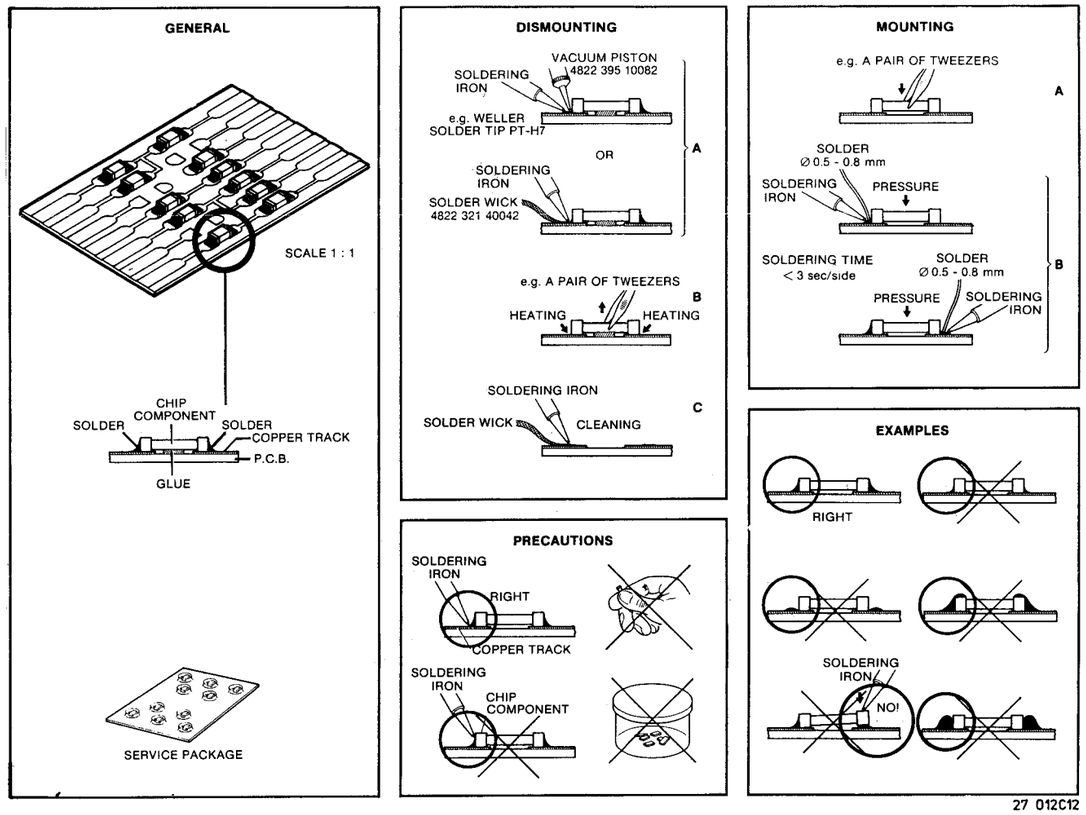
KEYS

1 IR-REMOTE
2 OPEN/close
3 DISPLAY
4 PLAY/replay
5 SHUFFLE
6 ⏮ TRACK ⏭
7 PROGRAM
8 PHONES
9 VOLUME
10 STOP/cm
11 PAUZE
12 REPEAT
13 ◁◁ SEARCH ▷▷
14 REM(aining) TIME

CONNECTIONS

a. Mains fuse holder
b. Mains lead
c. Voltage selector
d. Analogue output

SERVICING HINTS AND TOOLS



27 012C12

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

ESD

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

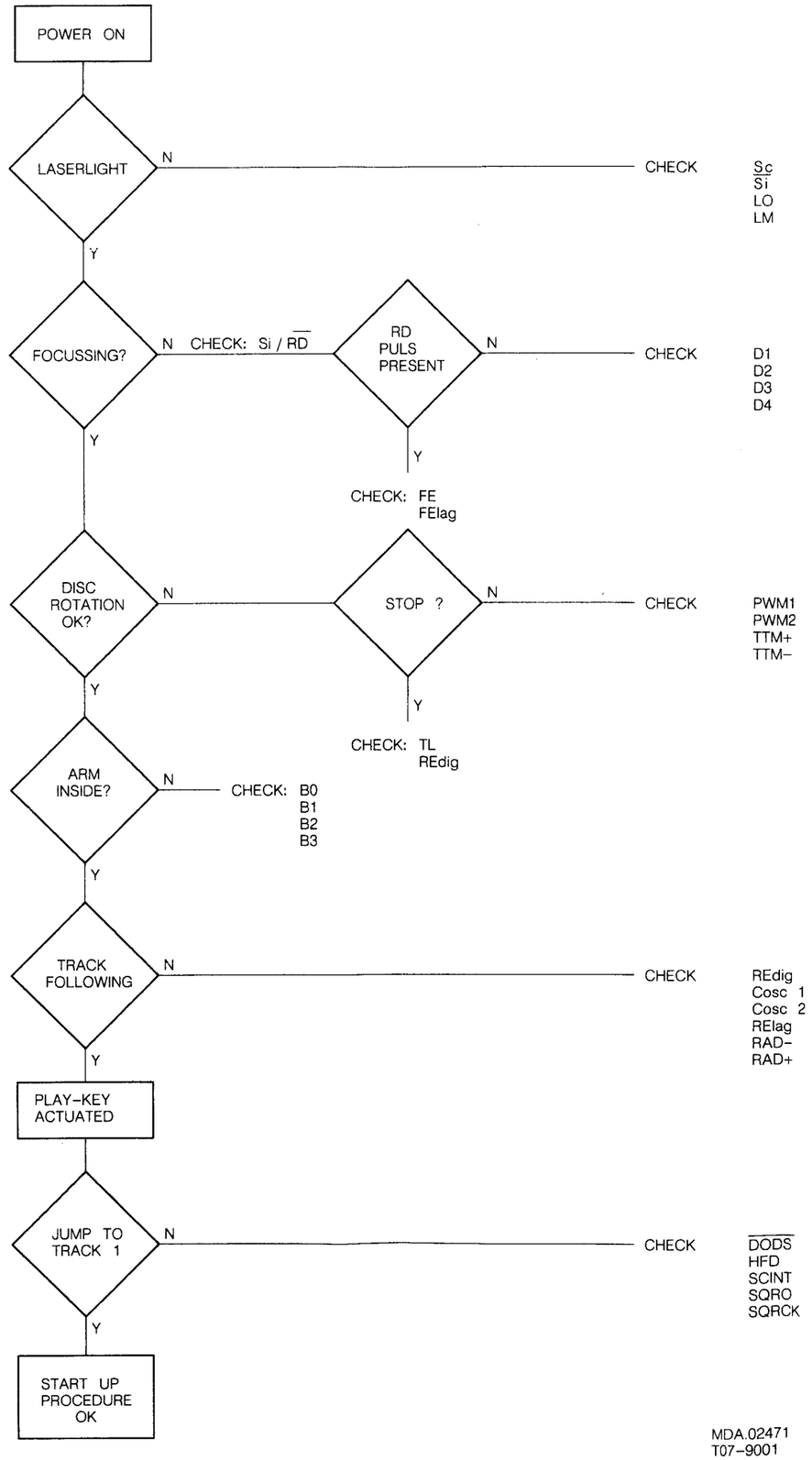
Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.



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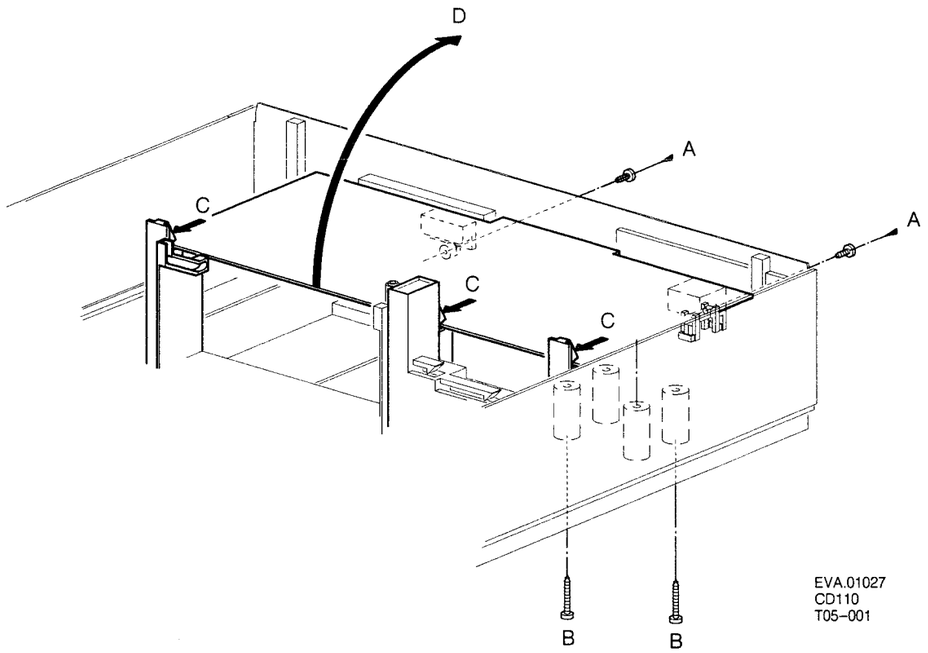
T07–9001

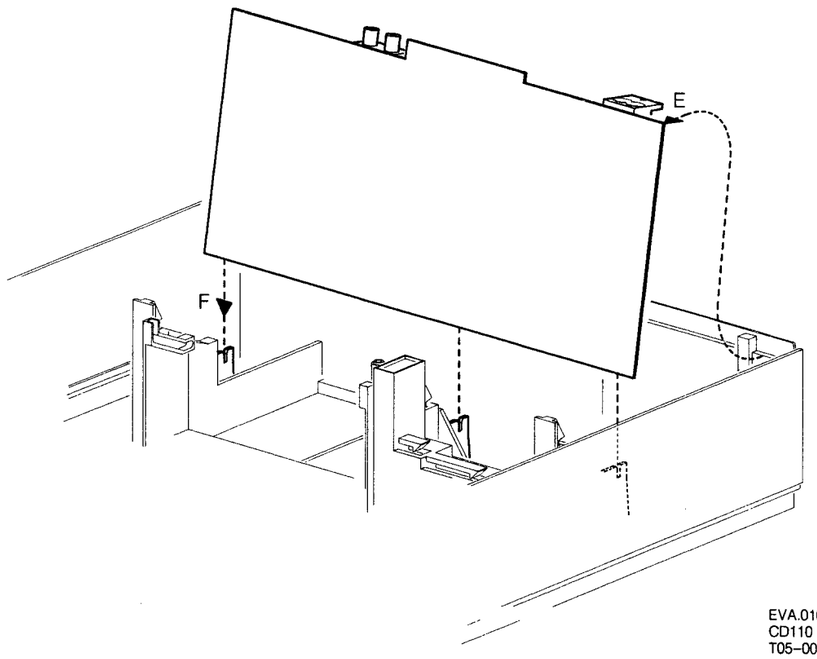
DISASSEMBLY OF THE CABINET AND LOADING

DEMOUNTING MAINPANEL



EVA.01027
CD110
T05–001

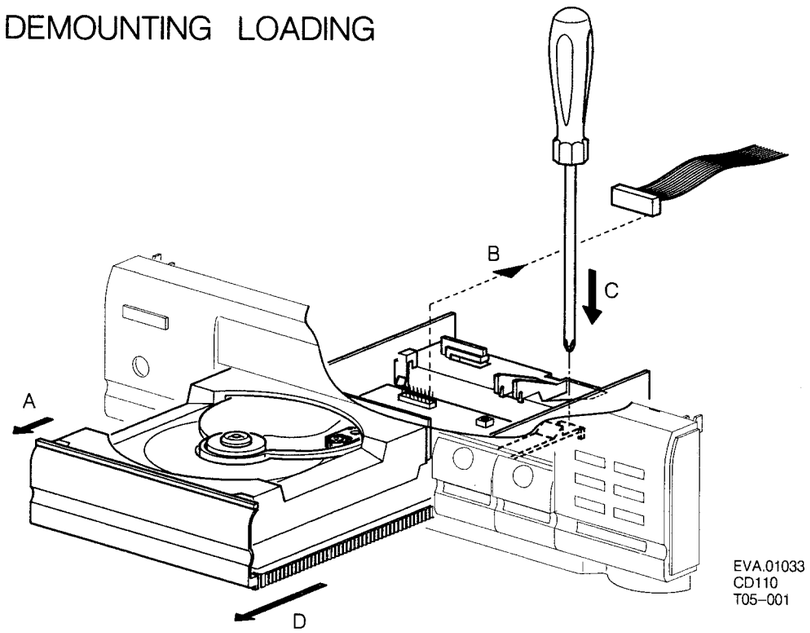
SERVICE POSITION MAINPANEL



EVA.01029
CD110
T05–001

3-3

DEMOUNTING LOADING



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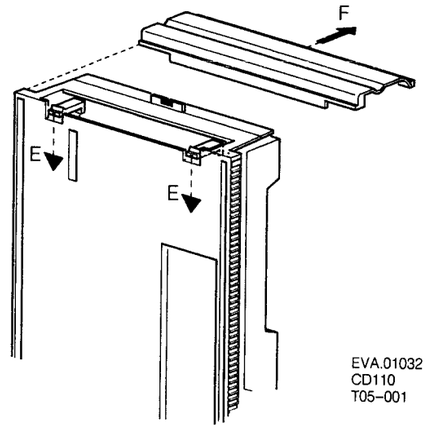
T05–001



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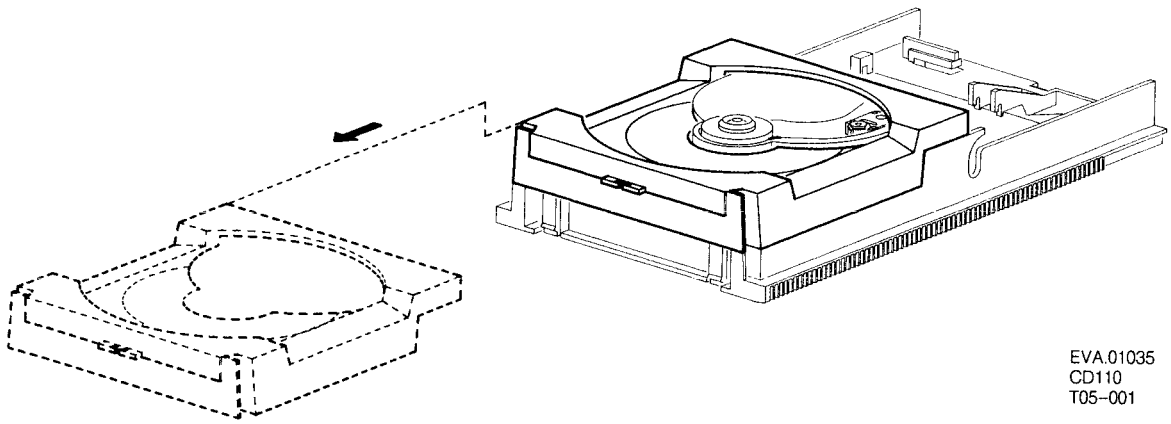
CD110
T05–001

DEMOUNTING CDM



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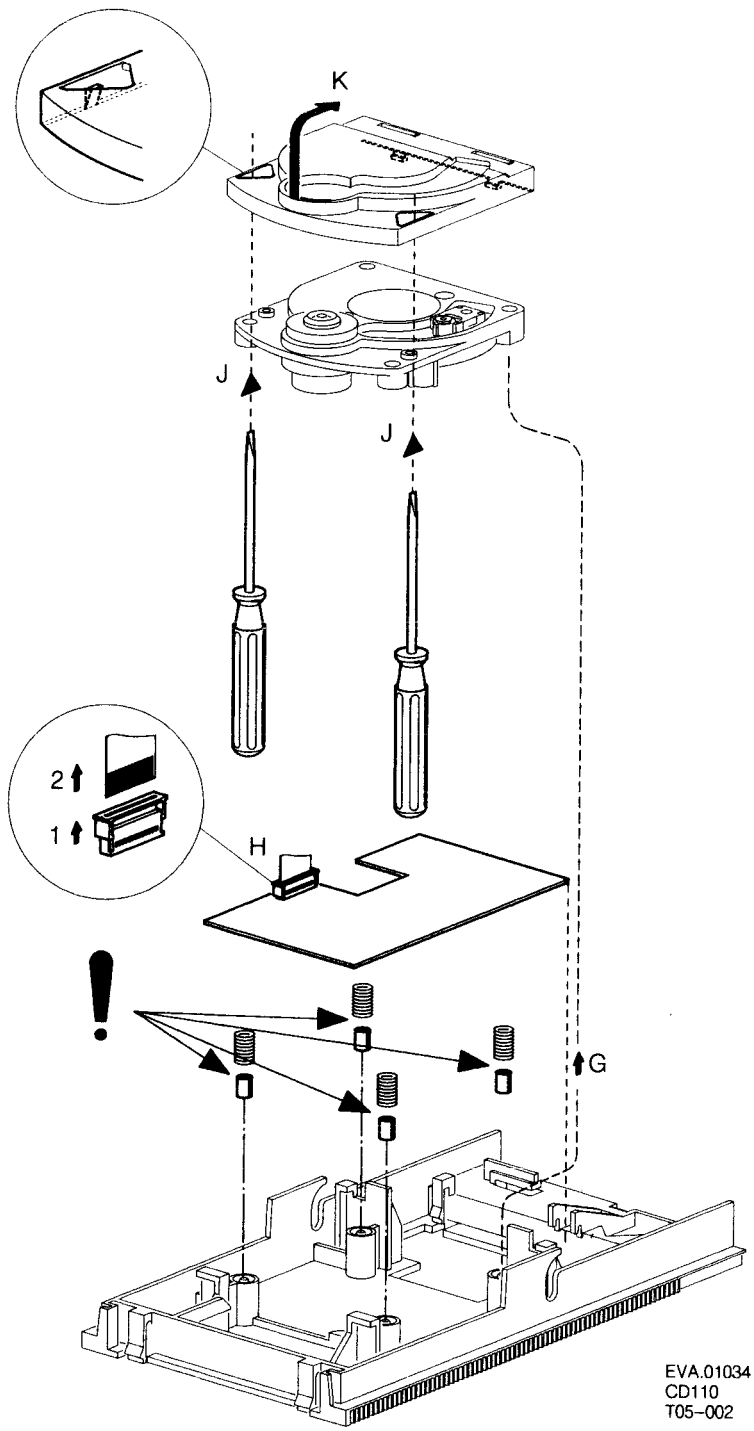
T05-001



EVA.01034
CD110
T05-002

MECHANICAL PARTSLIST

101	4822 444 60678	
102	4822 459 10806	
103	4822 450 61528	for CD110
103	4822 381 11125	for CD130
103	4822 450 61529	for CD140
104	4822 321 10522	for /05B
105	4822 218 10324	for CD140
106	4822 410 60594	for CD130/CD140
107	4822 444 40358	for CD110
107	4822 444 40359	for CD130/CD140
108	4822 321 10457	for /00B
109	4822 444 40357	
110	4822 410 60593	
111	4822 321 10523	for CD140/10B
113	4822 321 22832	
114	4822 464 50792	
115	4822 402 61323	
116	4822 492 52159	
117	4822 535 93054	
118	4822 492 33145	
119	4822 492 51902	
120	4822 466 61587	
121	4822 444 50628	
122	4822 466 92841	
123	4822 528 90639	
124	4822 444 60681	
125	4822 454 30438	
126	4822 691 30209	
127	4822 402 61322	
128	4822 492 52123	
129	4822 532 51756	
130	4822 528 81329	
131	4822 358 10115	
132	4822 462 41652	
133	4822 361 21258	
134	4822 444 60679	

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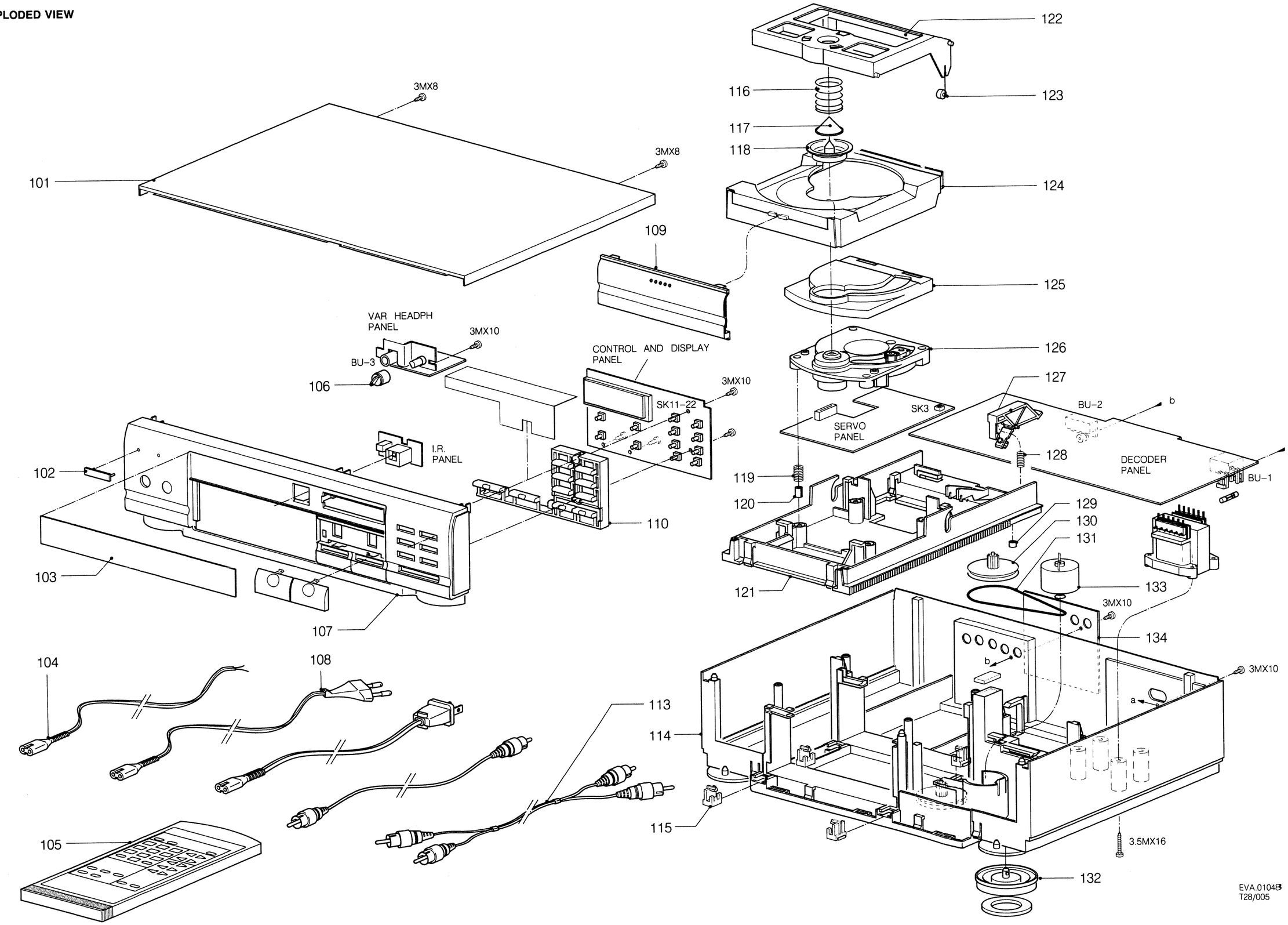
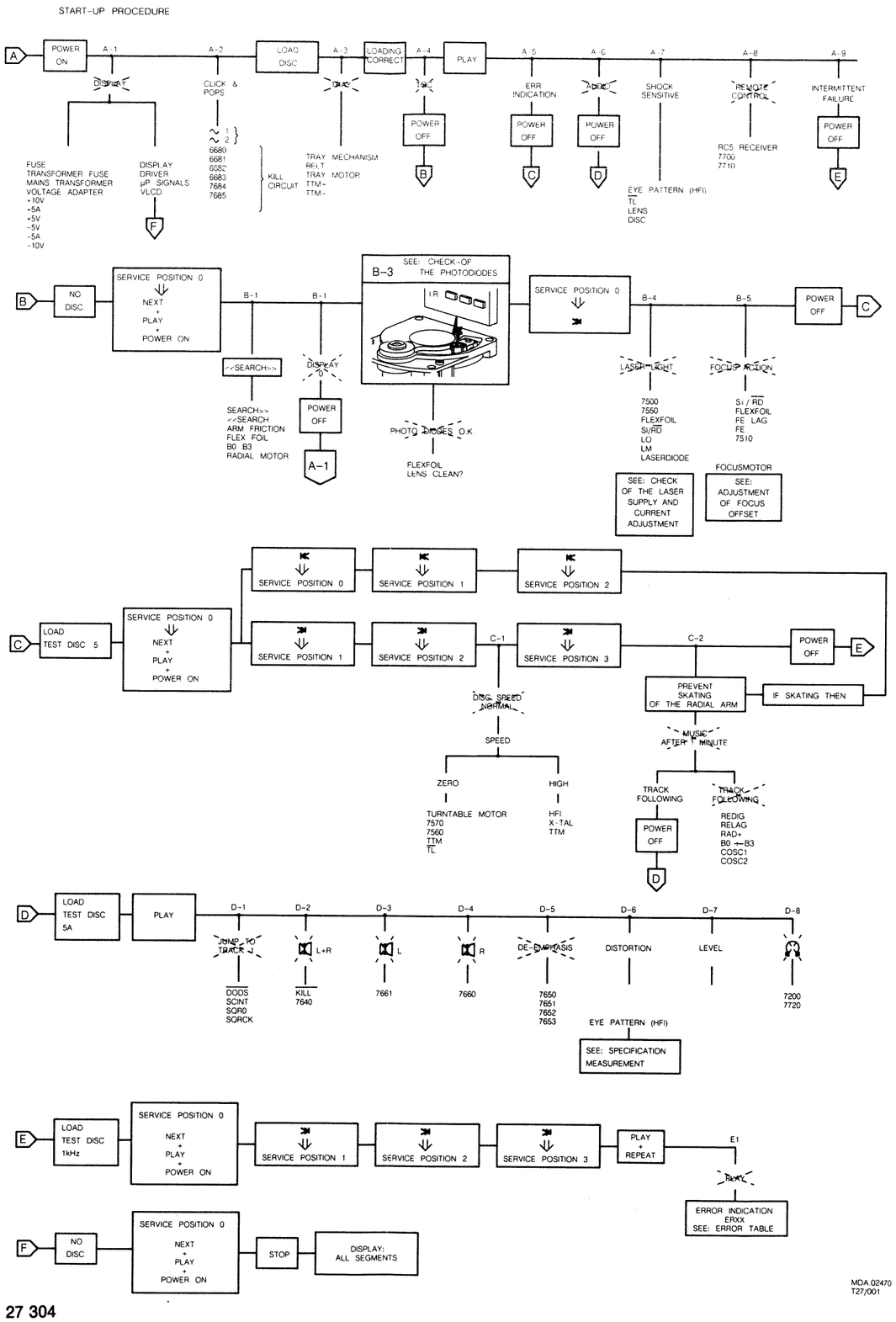
EXPLODED VIEW



FAULTFINDING TREE

TROUBLE SHOOTING (FAULT FINDING TREE)



MDA.02470
T27/001

B-3 CHECK OF THE PHOTODIODES

Step	Signal	Mode	◇	∠	▭	⎍	Remarks
1	D2 D1 D3 D4	power on	4 6 7 8	–	–	signal 4E6E7E8	Signal depends on Distance lens ⟷ IR LED of remote control

T-22407A

B-4 CHECK OF LASER SUPPLY

The laser, the lasersupply plus the monitor diode form a feedback system.
A defect in the lasersupply may result in the destruction of the laser. If, in that case, the laser is replaced, (= complete D.C.M.-unit) the new laser will also become defective. However, it is impossible to check and repair a feedback system if a link is missing. For this reason the laser supply can be checked with teh replacement circuit for laser assembly.

Step	Signal	Mode	◇	▭	Remarks
1	LO	serv. pos. 2 SK	9 (V)	1.8<V <2.3	
	LM		11 (V)	170<mV <220	PRS05539
2	LO	serv. pos. 2 SK	9 (V)	1.8<V <2.3	
	LM		11 (V)	170<mV <220	PRS05540
3	LO	Power on	9 (V)	0V ± 0.2V	No light

T-22407B

B-4 LASER CURRENT ADJUSTMENT

STEP	SIGNAL	MODE	◇	∠	⎍	▭	REMARKS
1	--	POWER OFF	--	--	--	--	CHECK IF FLEX-FOIL IS PROPERLY CONNECTED
2	--	POWER OFF	11 (Ω)	R3555	1kΩ +10% 0	--	PRE ADJUSTMENT OHMIC VALUE
3	--	POWER OFF	--	R3515	--	--	SET TO MID-POSITION
4	LASER CURRENT ≡ VOLTAGE ACROSS R3500	TEST DISC 5A PLAY	1 (V) 2 mV DC	--	⩾15mV	--	IF ⩽ 15mV THEN GO TO STEP 3 AND SET R3515 TO 1/4 OR 3/4. TRY AGAIN
5	LASER CURRENT ≡ VOLTAGE ACROSS R3500	TEST DISC 5A PLAY	1 (V) 2 mV DC	R3555	50mV	--	--
6	FE-LAG	TEST DISC 5A TRACK 1 PLAY	27 (V) mV DC	R3515	400mV ±10%	--	FINE ADJUSTMENT

MDA.02444
T28/950

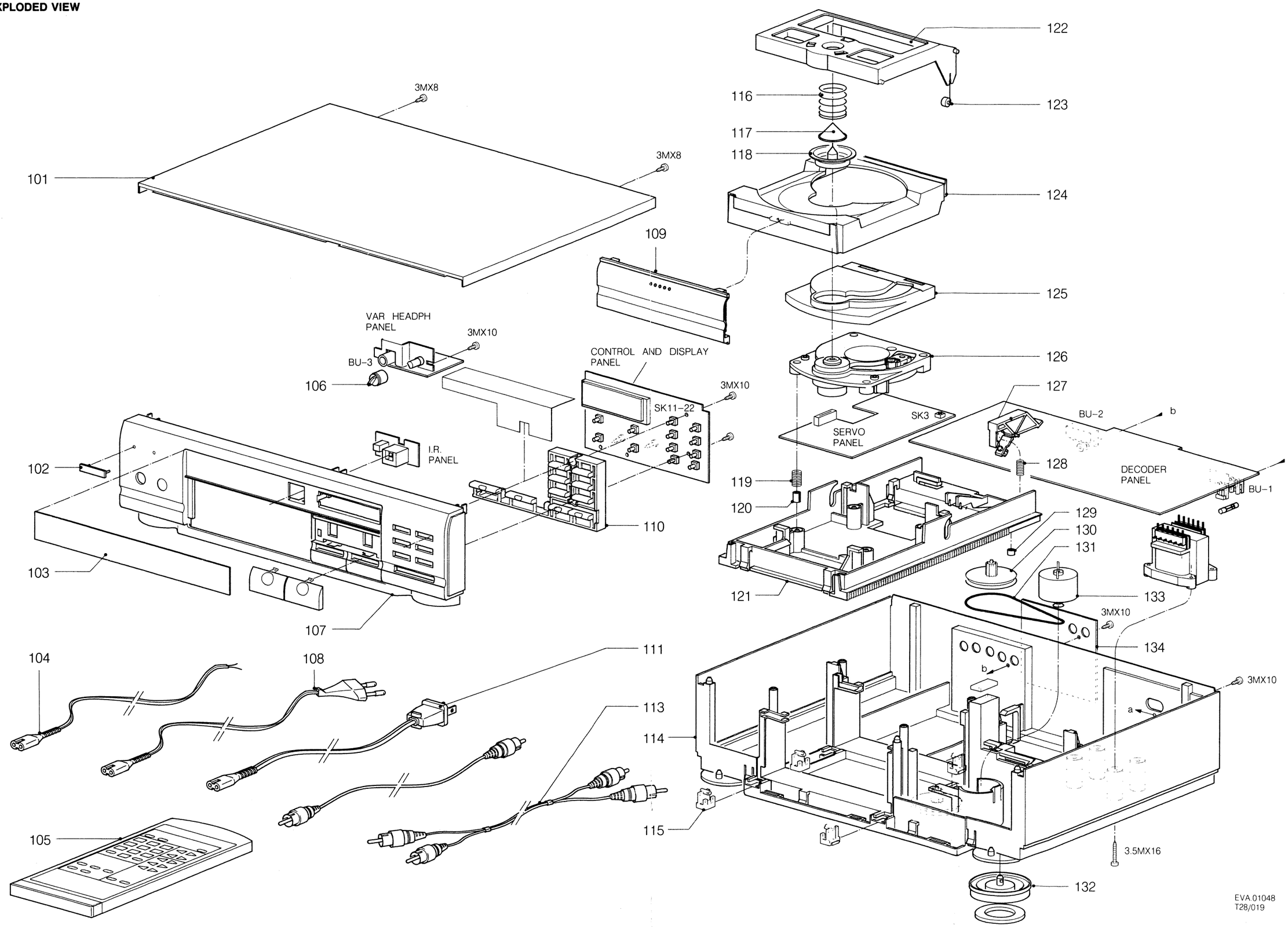
B-5 ADJUSTMENT OF FOCUS-OFFSET

Step	Signal	Mode	◇	∠	▭	⎍	Remarks
1	–	Power on no disc	–	R3568	–	–	adjust for optical mid-position of the focus motor
2	FE LAG	Play Test disc 5 Track 1	27	R3568	400mV ± 40 mV DC	–	fine adjustment

T-22407D

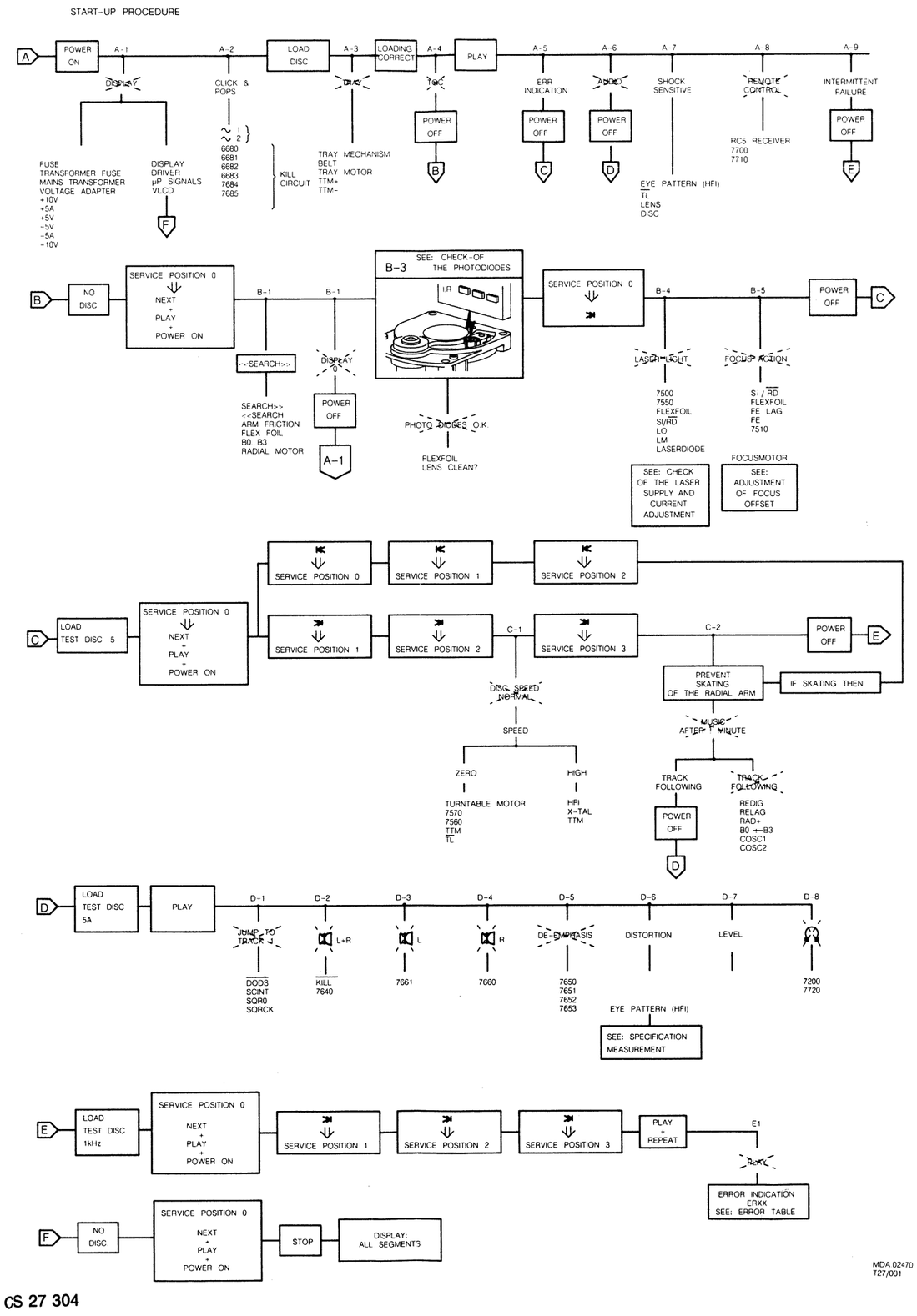
3-6a

EXPLODED VIEW



FAULTFINDING TREE

TROUBLE SHOOTING (FAULT FINDING TREE)



MDA 02470
T27/001

B-3 CHECK OF THE PHOTODIODES

Step	Signal	Mode	◇	∠	▭	⎍	Remarks
1	D2 D1 D3 D4	power on	◇4 ◇6 ◇7 ◇8	–	–	signal 4E6E7E8	Signal depends on Distance lens ↔ IR LED of remote control

T-22407A

B-4 CHECK OF LASER SUPPLY

The laser, the lasersupply plus the monitor diode form a feedback system.
A defect in the lasersupply may result in the destruction of the laser. If, in that case, the laser is replaced, (= complete D.C.M.-unit) the new laser will also become defective. However, it is impossible to check and repair a feedback system if a link is missing. For this reason the laser supply can be checked with teh replacement circuit for laser assembly.

Step	Signal	Mode	◇	▭	Remarks
1	LO	serv. pos. 2 SK	◇9 — V	1.8<V <2.3	
	LM		◇11 — V	170<mV <220	PRS05539
2	LO	serv. pos. 2 SK	◇9 — V	1.8<V <2.3	
	LM		◇11 — V	170<mV <220	PRS05540
3	LO	Power on	◇9 — V	0V ± 0.2V	No light

T-22407B

B-4 LASER CURRENT ADJUSTMENT

STEP	SIGNAL	MODE	◇	∠	⎍	▭	REMARKS
1	--	POWER OFF	--	--	--	--	CHECK IF FLEX-FOIL IS PROPERLY CONNECTED
2	--	POWER OFF	◇11 — Ω	R3555	1kΩ +10% 0	--	PRE ADJUSTMENT OHMIC VALUE
3	--	POWER OFF	--	R3515	--	--	SET TO MID-POSITION
4	LASER CURRENT ⩦ VOLTAGE ACROSS R3500	TEST DISC 5A PLAY	◇1 — V — ◇2 mV DC	--	⩾15mV	--	IF ⩽ 15mV THEN GO TO STEP 3 AND SET R3515 TO 1/4 OR 3/4. TRY AGAIN
5	LASER CURRENT ⩦ VOLTAGE ACROSS R3500	TEST DISC 5A PLAY	◇1 — V — ◇2 mV DC	R3555	50mV	--	--
6	FE-LAG	TEST DISC 5A TRACK 1 PLAY	◇27 — V mV DC	R3515	400mV ±10%	--	FINE ADJUSTMENT

MDA 02444
T28/950

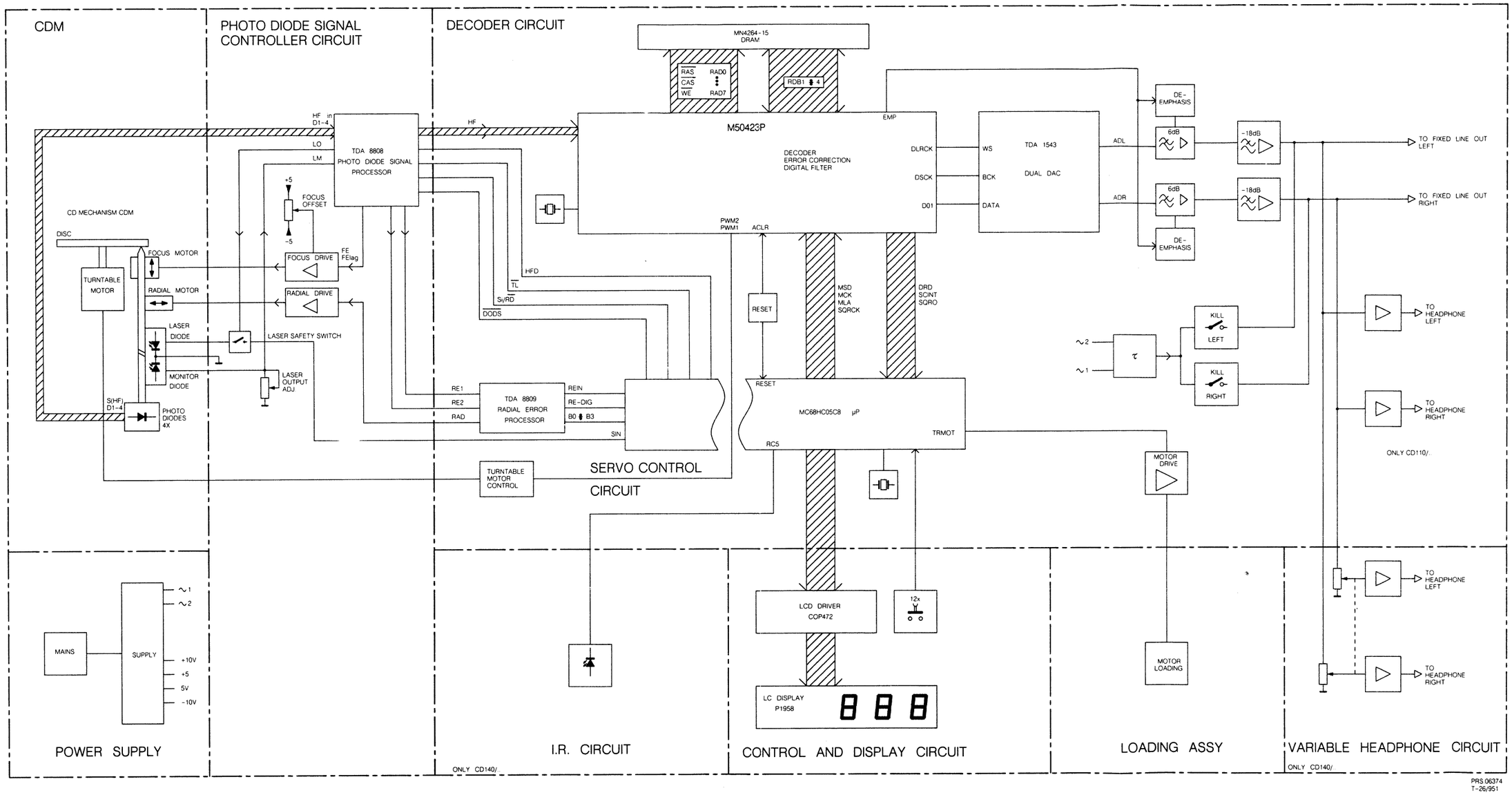
B-5 ADJUSTMENT OF FOCUS-OFFSET

Step	Signal	Mode	◇	∠	▭	⎍	Remarks
1	–	Power on no disc	–	R3568	–	–	adjust for optical mid-position of the focus motor
2	FE LAG	Play Test disc 5 Track 1	27	R3568	400mV ± 40 mV DC	–	fine adjustment

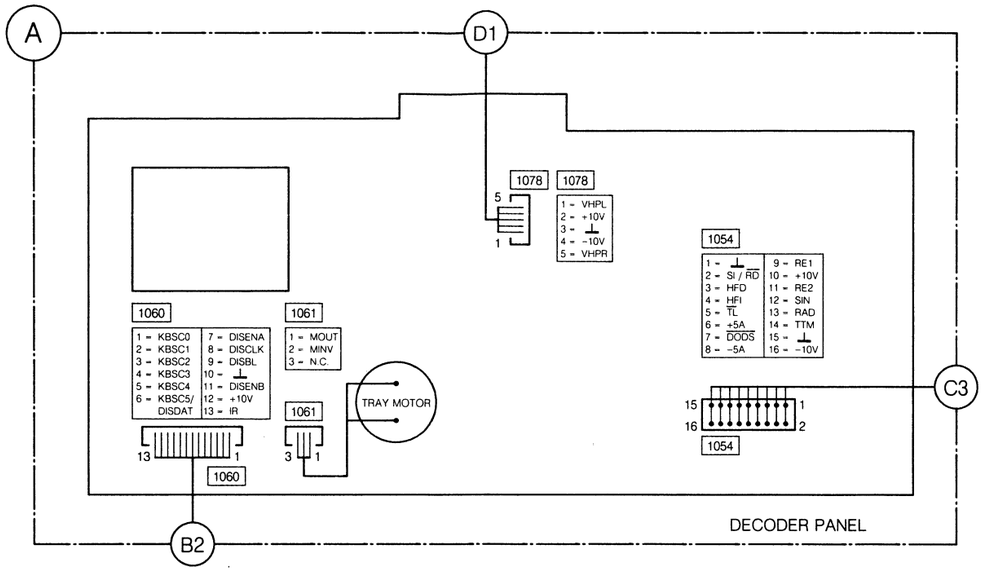
T-22407D

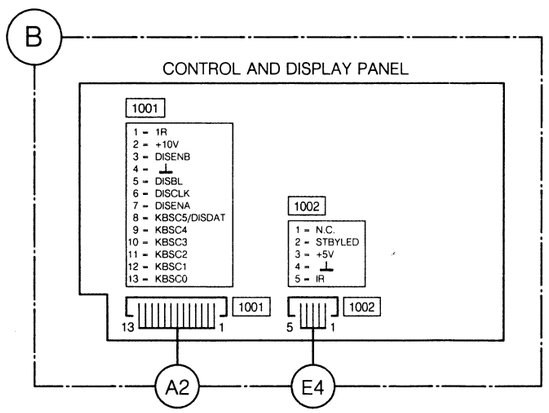
5-2

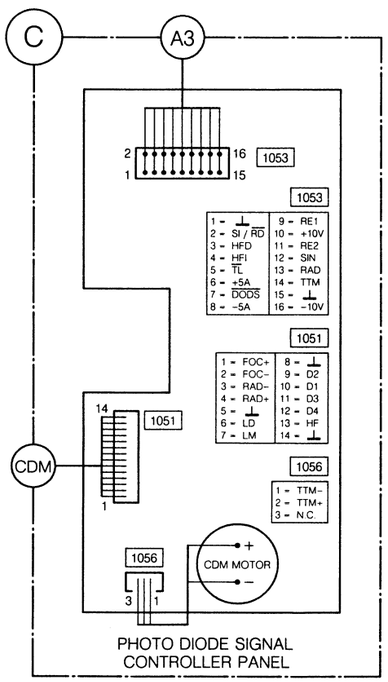
BLOCK DIAGRAM

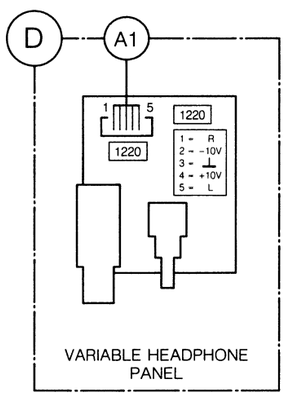


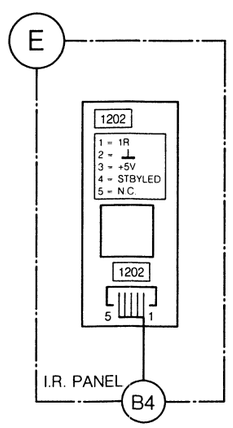
WIRING DIAGRAM











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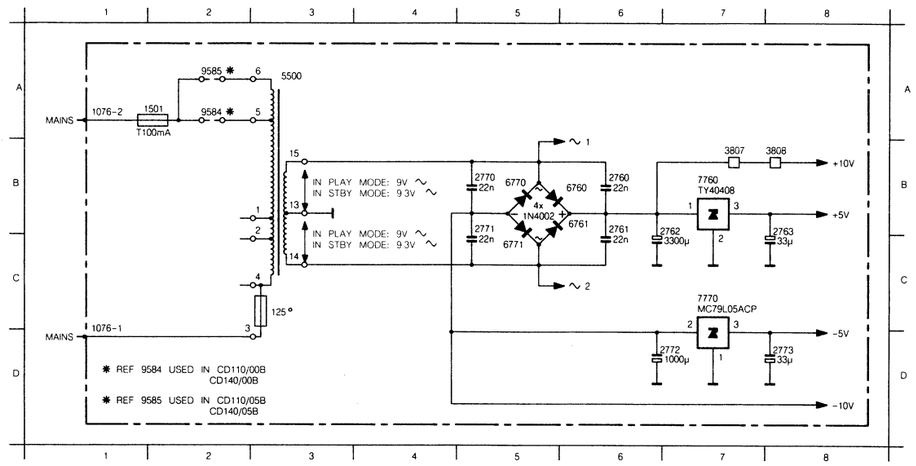
T06–950

POWER SUPPLY

1501 A 2 2760 B 6 | 2761 B 6 2762 B 7 | 2763 B 8 2770 B 5 | 2771 B 5 2772 D 7 | 2773 D 8 3807 B 7 | 3808 B 8 5500 A 3 | 6760 B 6 6761 B 6 | 6770 B 5 6771 C 5 | 7760 B 7 7770 C 7 | 9584 A 2 9585 A 2



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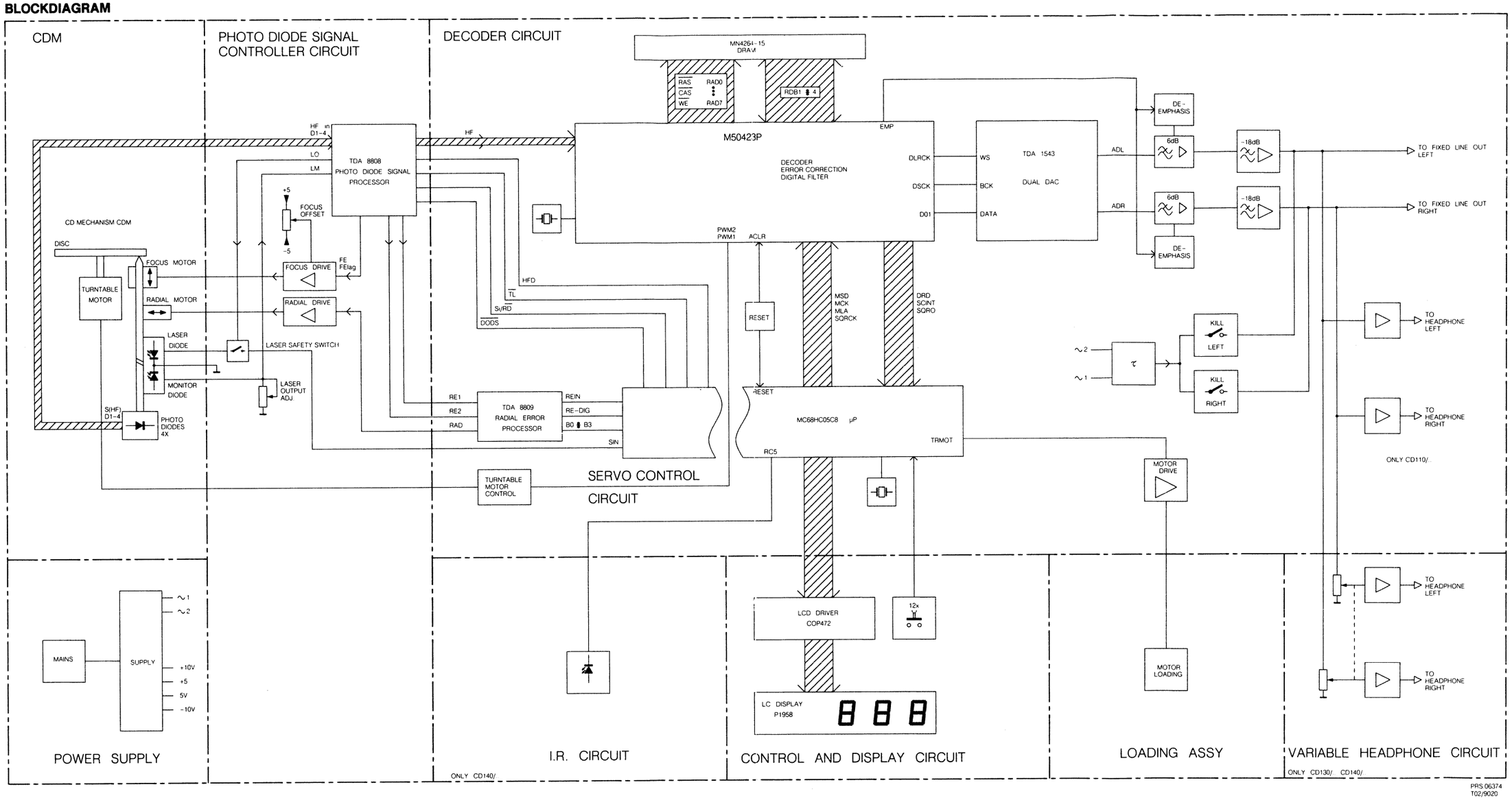
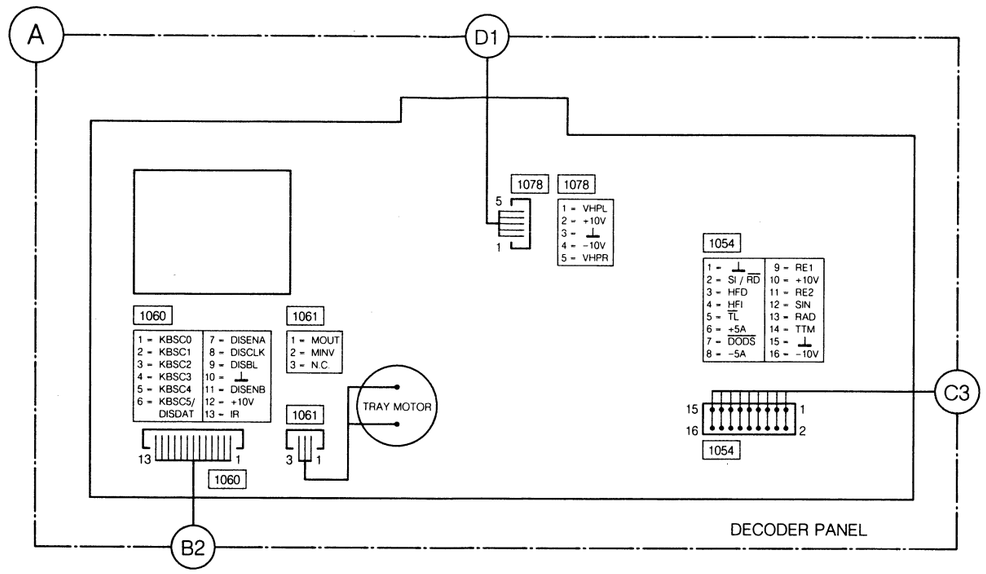
T-08 951

5-2a

BLOCKDIAGRAM



WIRING DIAGRAM



MDA.02452
T06–019

POWER SUPPLY

1501 A 2 2760 B 6 | 2761 B 6 2762 B 7 | 2763 B 8 2770 B 5 | 2771 B 5 2772 D 7 | 2773 D 8 3807 B 7 | 3808 B 8 5500 A 3 | 6760 B 6 6761 B 6 | 6770 B 5 6771 C 5 | 7760 B 7 7770 C 7 | 9584 A 2 9585 A 2

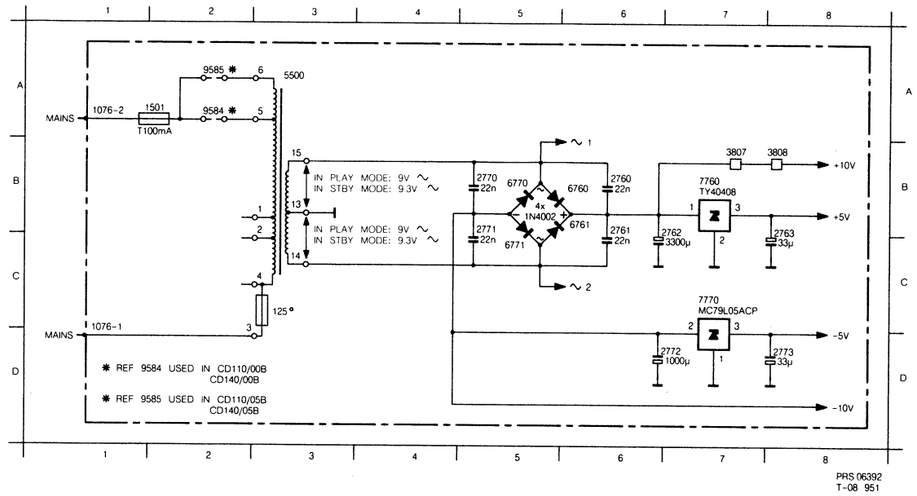
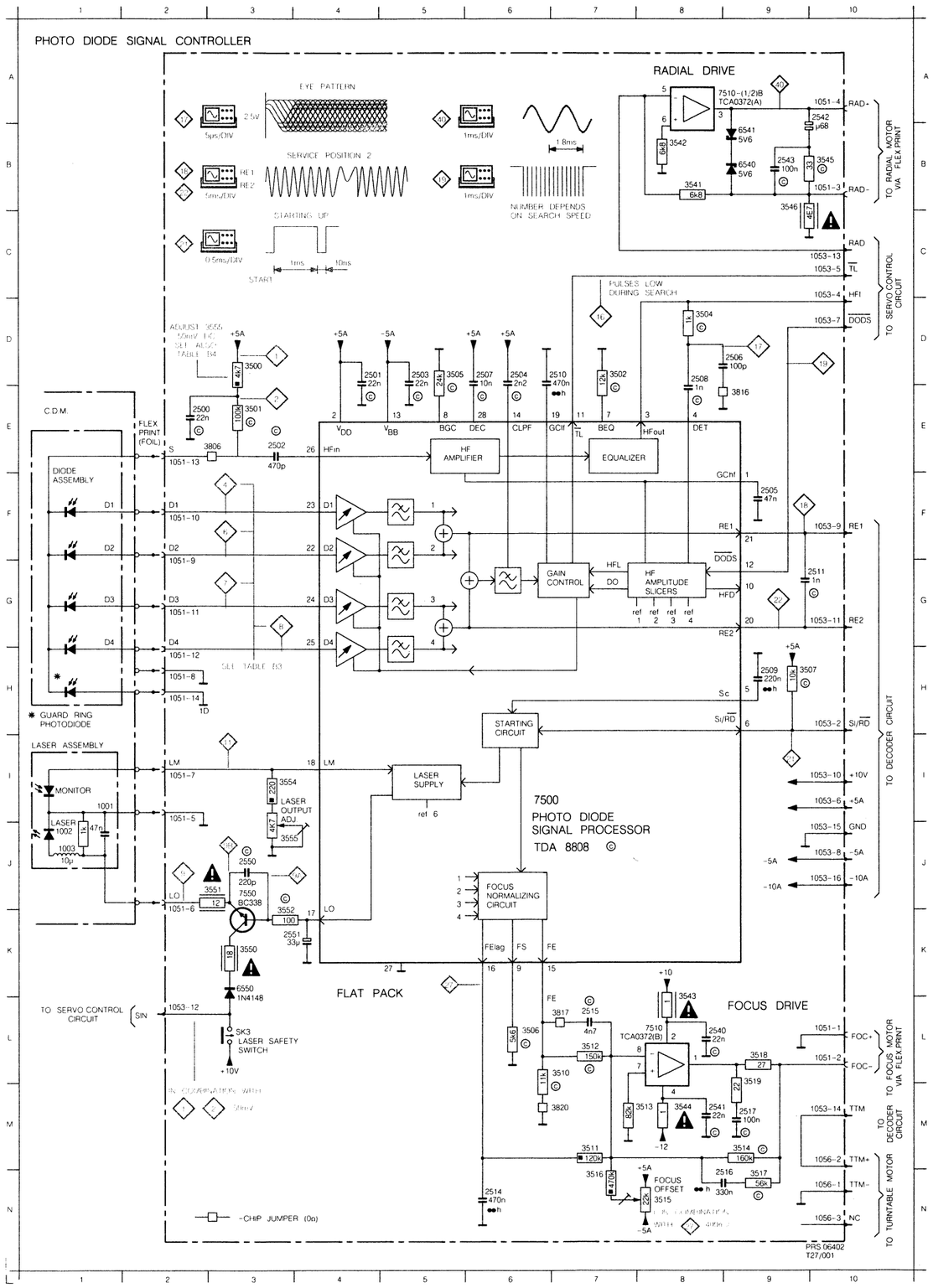
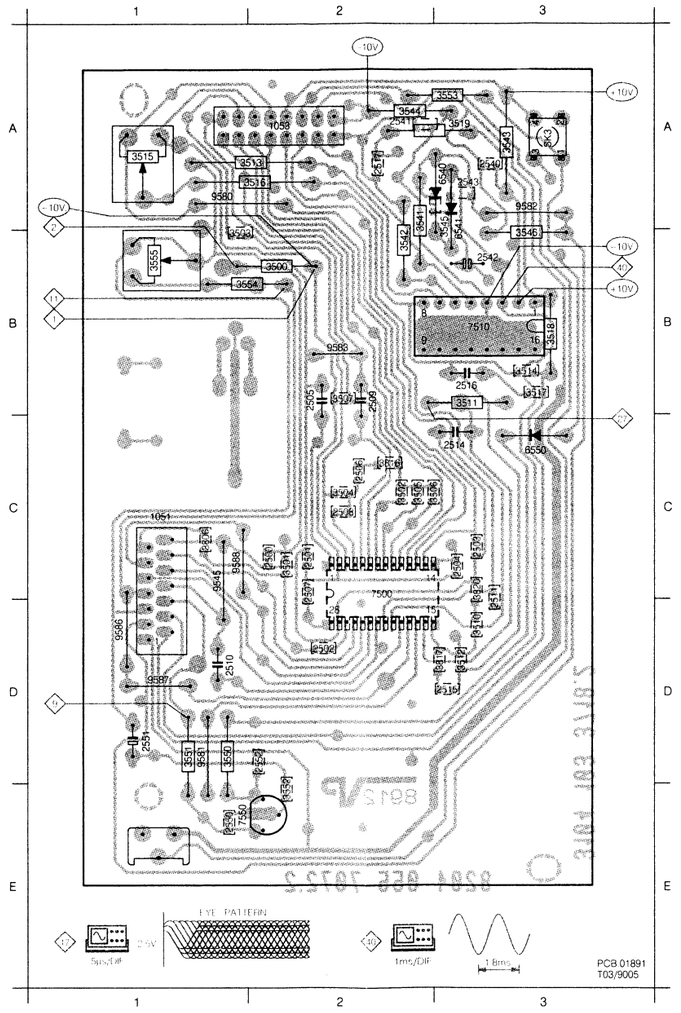


PHOTO DIODE SIGNAL CONTROLLER

1001	I 1	2502	E 3	2507	D 6	2514	N 6	2541	M 8	3500	D 3	3506	L 6	3513	M 8	3518	L 9	3543	K 8	3552	K 3	3817	L 7	7500	I 7
1002	J 1	2503	D 5	2508	D 8	2515	L 7	2542	A10	3501	E 3	3507	H10	3514	M 9	3519	L 9	3544	M 8	3554	I 3	3820	M 7	7510	L 8
1003	J 1	2504	D 6	2509	H 9	2516	N 9	2543	B 9	3502	D 7	3510	L 7	3515	N 8	3541	B 8	3546	B 9	3555	J 3	6540	B 9	7510	A 9
2500	E 2	2505	F 9	2510	D 7	2517	M 9	2550	J 3	3504	D 8	3511	M 7	3516	N 7	3542	B 8	3550	K 3	3806	E 3	6541	B 9	7550	J 3
2501	D 4	2506	D 9	2511	G10	2540	L 8	2551	K 4	3505	D 5	3512	L 7	3517	N 9	3545	B10	3551	J 3	3816	E 9	6550	K 3	SK3	L 3



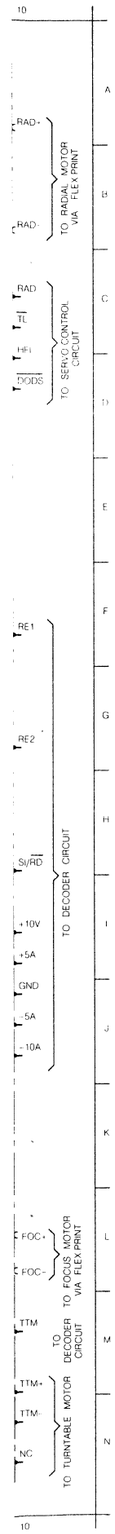


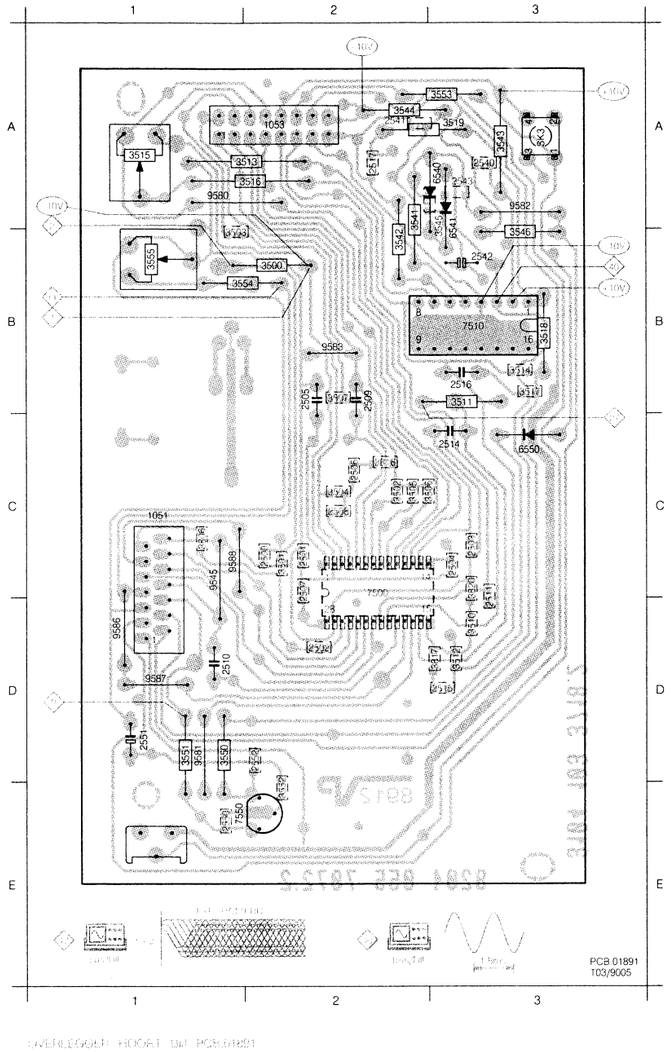
OVERLEGGER HOORT BIJ PCB.01891

SK3	A3
1051	C1
1053	A2
2500	C2
2501	C2
2502	D2
2503	C3
2504	C3
2505	B2
2506	C2
2507	D2
2508	C2
2509	B2
2510	D1
2511	D3
2514	C3
2515	D3
2516	B3
2517	A2
2540	A3
2541	A2
2542	B3
2543	A3
2550	E1
2551	D1
2552	D2
3500	B2
3501	C2
3502	C2
3503	B1
3504	C2
3505	C2
3506	C3
3507	B2
3510	D3
3511	B3
3512	D3
3513	A1
3514	B3
3515	A1
3516	A1
3517	B3
3518	B3
3519	A3
3541	B2
3542	B2
3543	A3
3544	A2
3545	B3
3546	B3
3550	D1
3551	D1
3552	E2
3553	A3
3554	B1
3555	B1
3806	C1
3816	C2
3817	D3
3820	D3
6540	A3
6541	B3
6550	C3
7500	D2
7510	B3
7550	E1
9545	C1
9580	A1
9581	D1
9582	A3
9583	B2
9586	D1
9587	D1
9588	C1

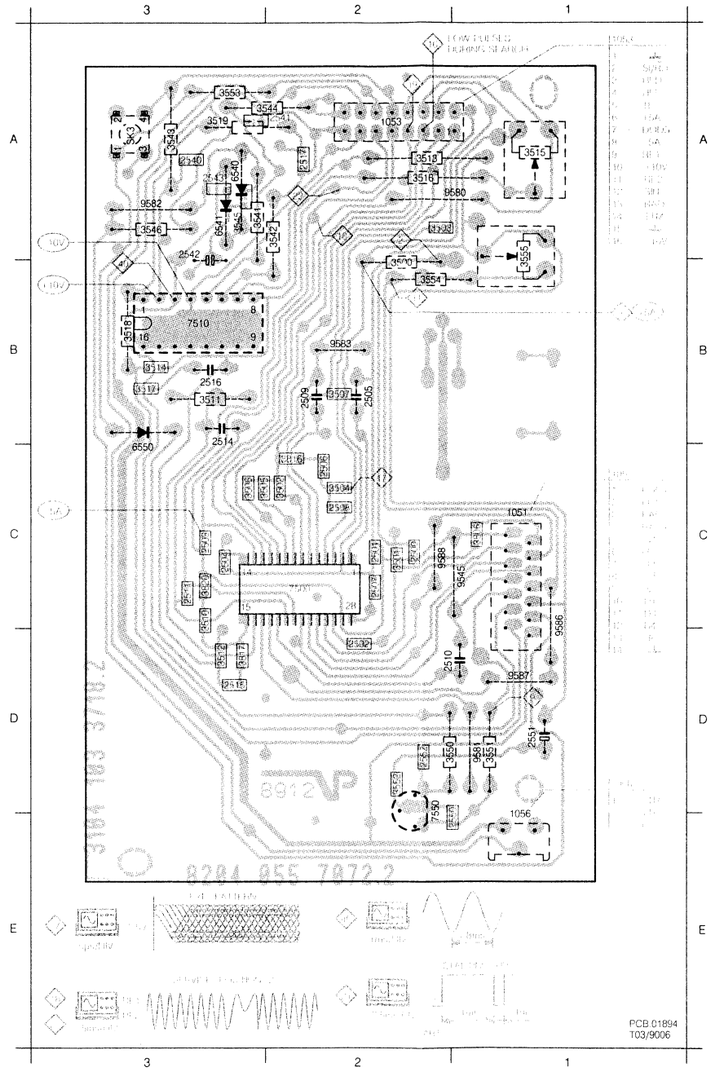
5-4

7500 I 7
7510 I 8
7510 A 9 8
7550 I 2
SK3 L 3





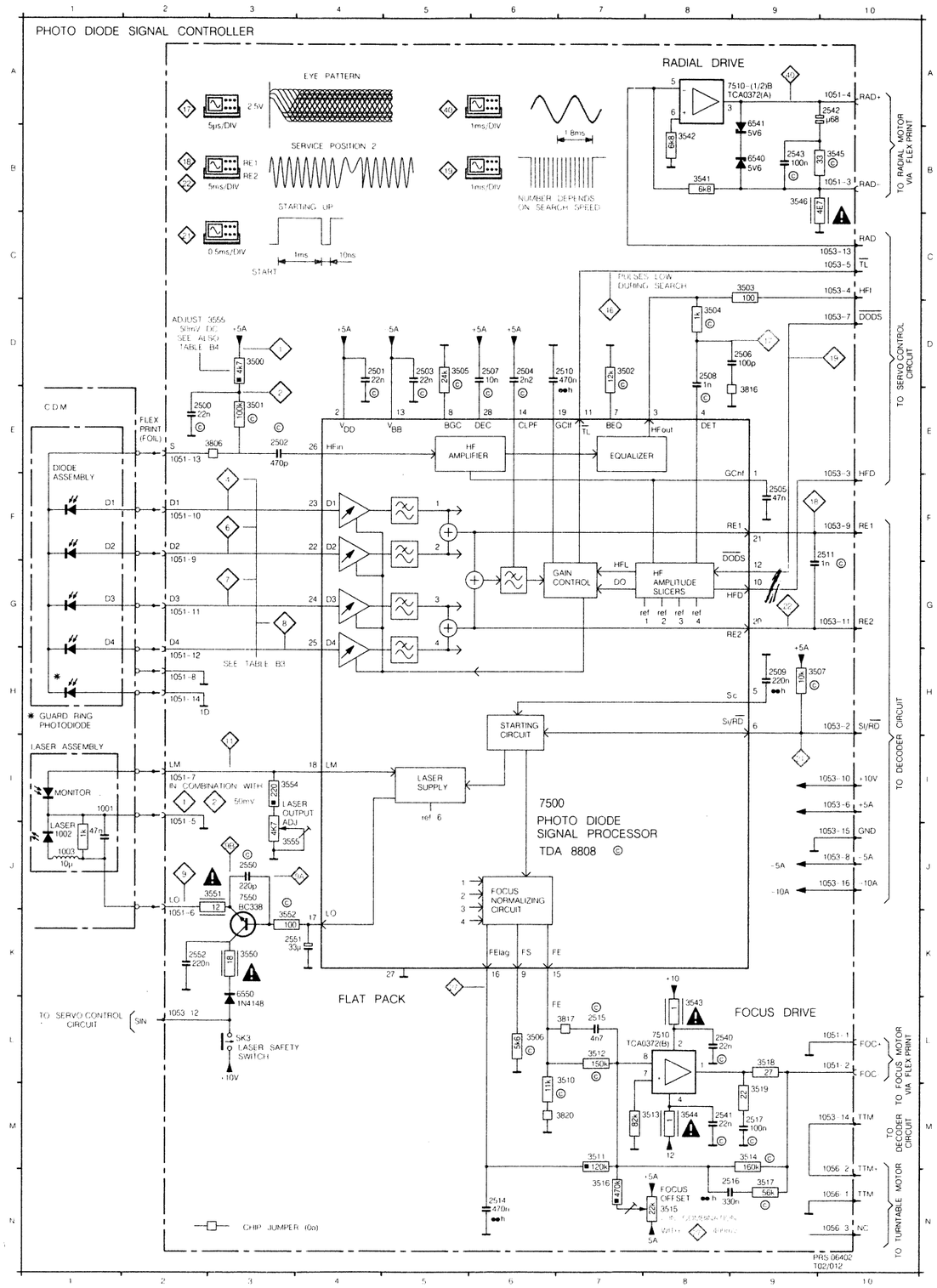
SK3 A3
1051 C1
1053 A2
2500 C2
2501 C2
2502 D2
2503 C3
2504 C3
2505 B2
2506 C2
2507 D2
2508 G2
2509 B2
2510 D1
2511 D3
2514 C3
2515 D3
2516 B3
2517 A2
2540 A3
2541 A2
2542 B3
2543 A3
2550 E1
2551 D1
2552 D2
3500 B2
3501 C2
3502 C2
3503 B1
3504 C2
3505 C2
3506 C3
3507 B2
3510 D3
3511 B3
3512 D3
3513 A1
3514 B3
3515 A1
3516 A1
3517 B3
3518 B3
3519 A3
3541 B2
3542 B2
3543 A3
3544 A2
3545 B3
3546 B3
3550 D1
3551 D1
3552 E2
3553 A3
3554 B1
3555 B1
3806 C1
3816 C2
3817 D3
3820 D3
6540 A3
6541 B3
6550 C3
7500 D2
7510 B3
7550 E1
9545 C1
9580 A1
9581 D1
9582 A3
9583 B2
9586 D1
9587 D1
9588 C1

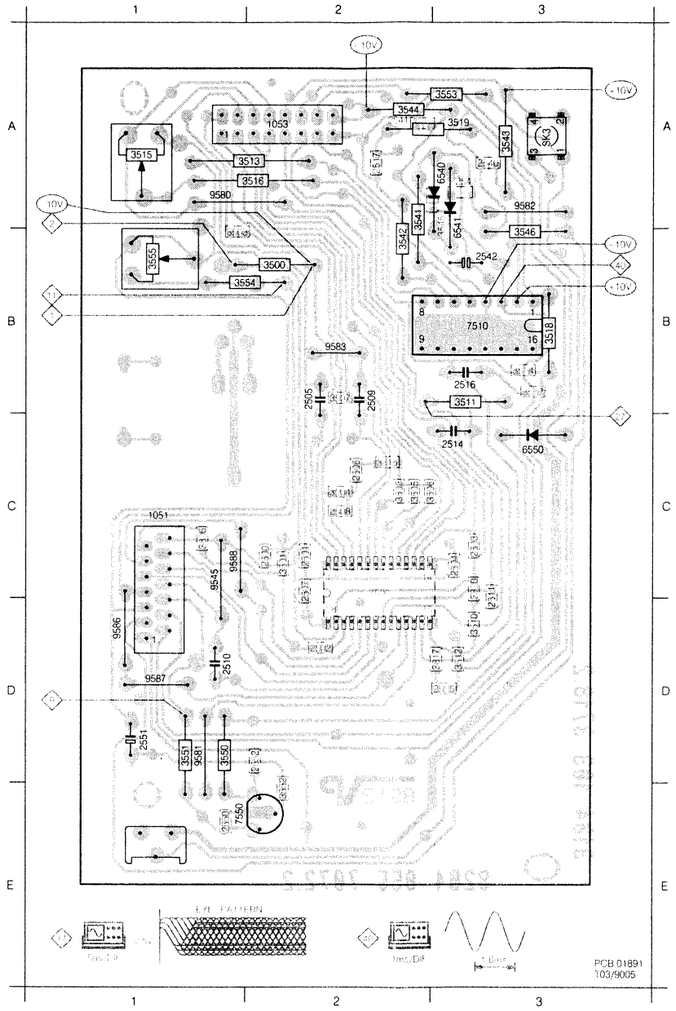


SK3 A3
1051 C1
1053 A2
1056 E1
2500 C2
2501 C2
2502 D2
2503 C3
2504 C3
2505 B2
2506 C2
2507 C2
2508 C2
2509 B2
2510 D2
2511 C3
2514 C3
2515 D3
2516 B3
2517 A2
2540 A3
2541 A2
2542 A3
2543 A3
2550 E2
2551 D1
2552 D2
3500 B2
3501 C2
3502 C2
3503 A2
3504 C2
3505 C3
3506 C3
3507 B2
3510 D3
3511 B3
3512 D3
3513 A2
3514 B3
3515 A1
3516 A2
3517 B3
3518 B3
3519 A3
3541 A3
3542 A2
3543 A3
3544 A2
3545 A3
3546 A3
3550 D2
3551 D1
3552 D2
3553 A3
3554 B2
3555 B1
3806 C1
3816 C2
3817 D3
3820 C3
6540 A3
6541 A3
6550 C3
7500 C2
7510 B3
7550 E2
9545 C1
9580 A1
9581 D1
9582 A3
9583 B2
9586 D1
9587 D1
9588 C2

PHOTO DIODE SIGNAL CONTROLLER

SK3 L3	2503 D5	2510 D6	2541 M8	3501 E3	3510 M7	3517 N9	3545 B10	3806 E3	7500 I6
1001 I1	2504 D6	2511 F9	2542 A10	3502 D7	3511 M7	3518 L9	3546 B9	3816 E9	7510 A8
1002 J1	2505 F9	2514 N6	2543 B9	3503 C9	3512 L7	3519 M9	3550 K3	3817 L7	7510 L8
1003 J1	2506 D9	2515 L7	2550 J3	3504 D8	3513 M7	3541 B8	3551 J3	3820 M7	7550 J3
2500 E2	2507 D6	2516 N9	2551 K3	3505 D5	3514 M9	3542 B8	3552 K3	6540 B9	
2501 D4	2508 D8	2517 M9	2552 K2	3506 L6	3515 N8	3543 L8	3554 I3	6541 B9	
2502 E3	2509 H9	2540 L8	3500 D3	3507 H9	3516 N7	3544 M8	3555 J4	6550 L3	





SK3 A3	3554 B1
1051 C1	3555 B1
1053 A2	3806 C1
2500 C2	3816 C2
2501 C2	3817 D3
2502 D2	3820 D3
2503 C3	6540 A3
2504 C3	6541 B3
2505 B2	6550 C3
2506 C2	7500 D2
2507 D2	7510 B3
2508 C2	7550 E1
2509 B2	9545 C1
2510 D1	9580 A1
2511 D3	9581 D1
2514 C3	9582 A3
2515 D3	9583 B2
2516 B3	9586 D1
2517 A2	9587 D1
2540 A3	9588 C1
2541 A2	
2542 B3	
2543 A3	
2550 E1	
2551 D1	
2552 D2	
3500 B2	
3501 C2	
3502 C2	
3503 B1	
3504 C2	
3505 C2	
3506 C3	
3507 B2	
3510 D3	
3511 B3	
3512 D3	
3513 A1	
3514 B3	
3515 A1	
3516 A1	
3517 B3	
3518 B3	
3519 A3	
3541 B2	
3542 B2	
3543 A3	
3544 A2	
3545 B3	
3546 B3	
3550 D1	
3551 D1	
3552 E2	
3553 A3	
3554 B1	
3555 B1	
3806 C1	
3816 C2	
3817 D3	
3820 D3	
6540 A3	
6541 B3	
6550 C3	
7500 D2	
7510 B3	
7550 E1	
9545 C1	
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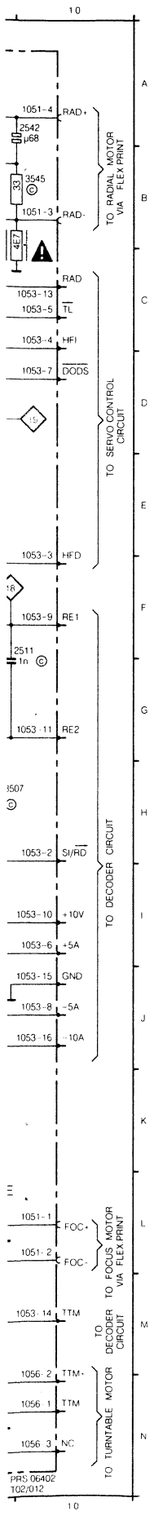
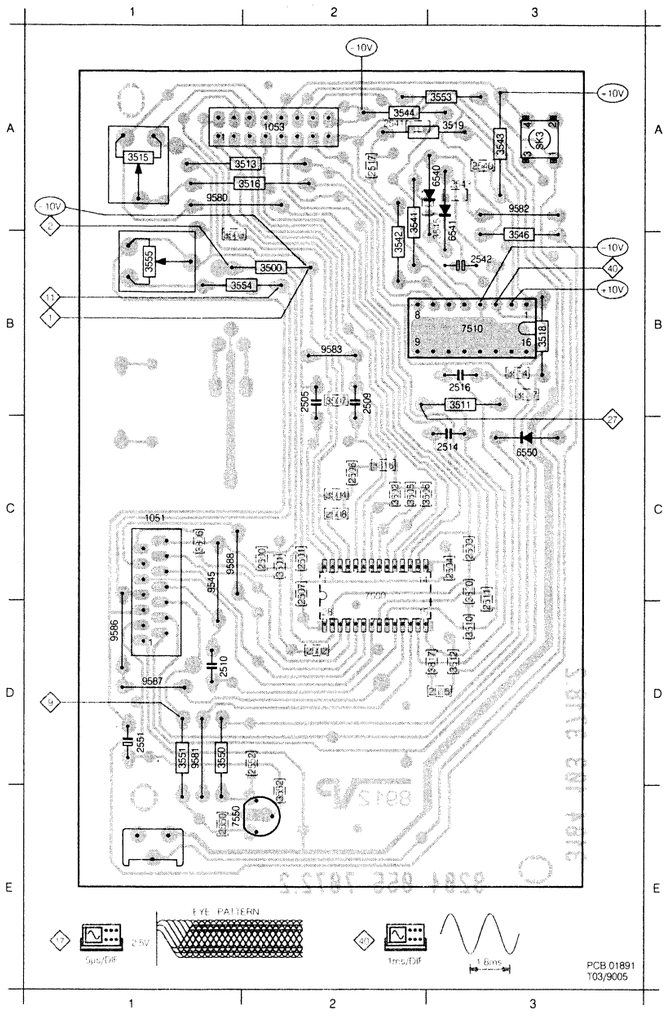
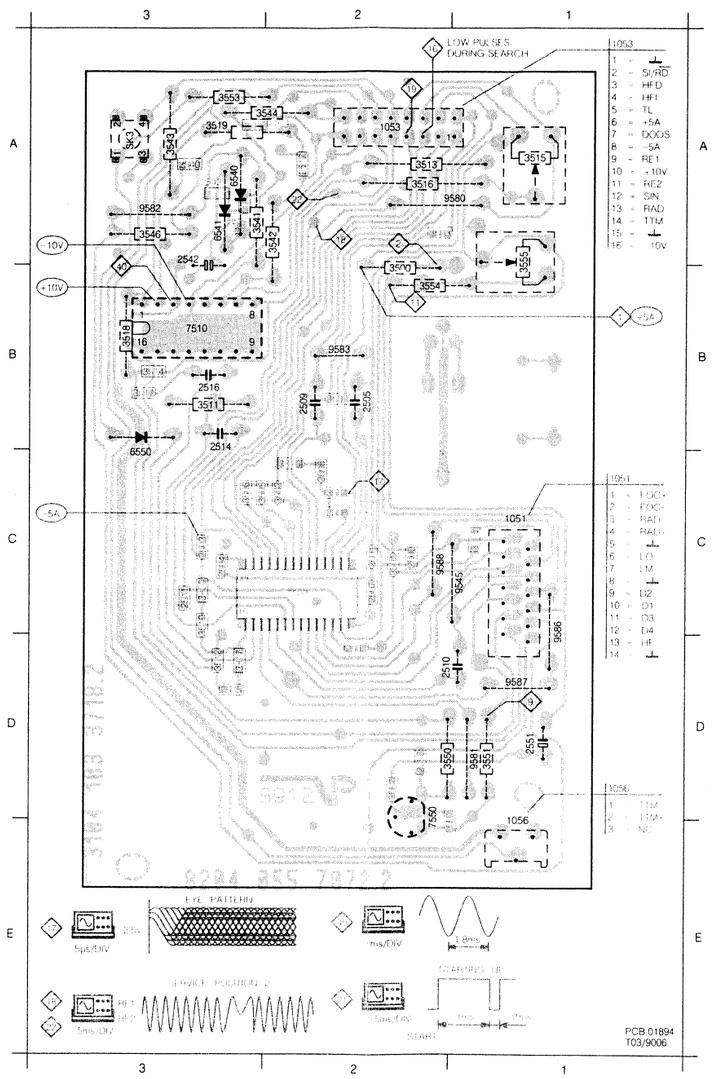
9581 D1	
9582 A3	
9583 B2	
9586 D1	
9587 D1	
9588 C1	

5-4a



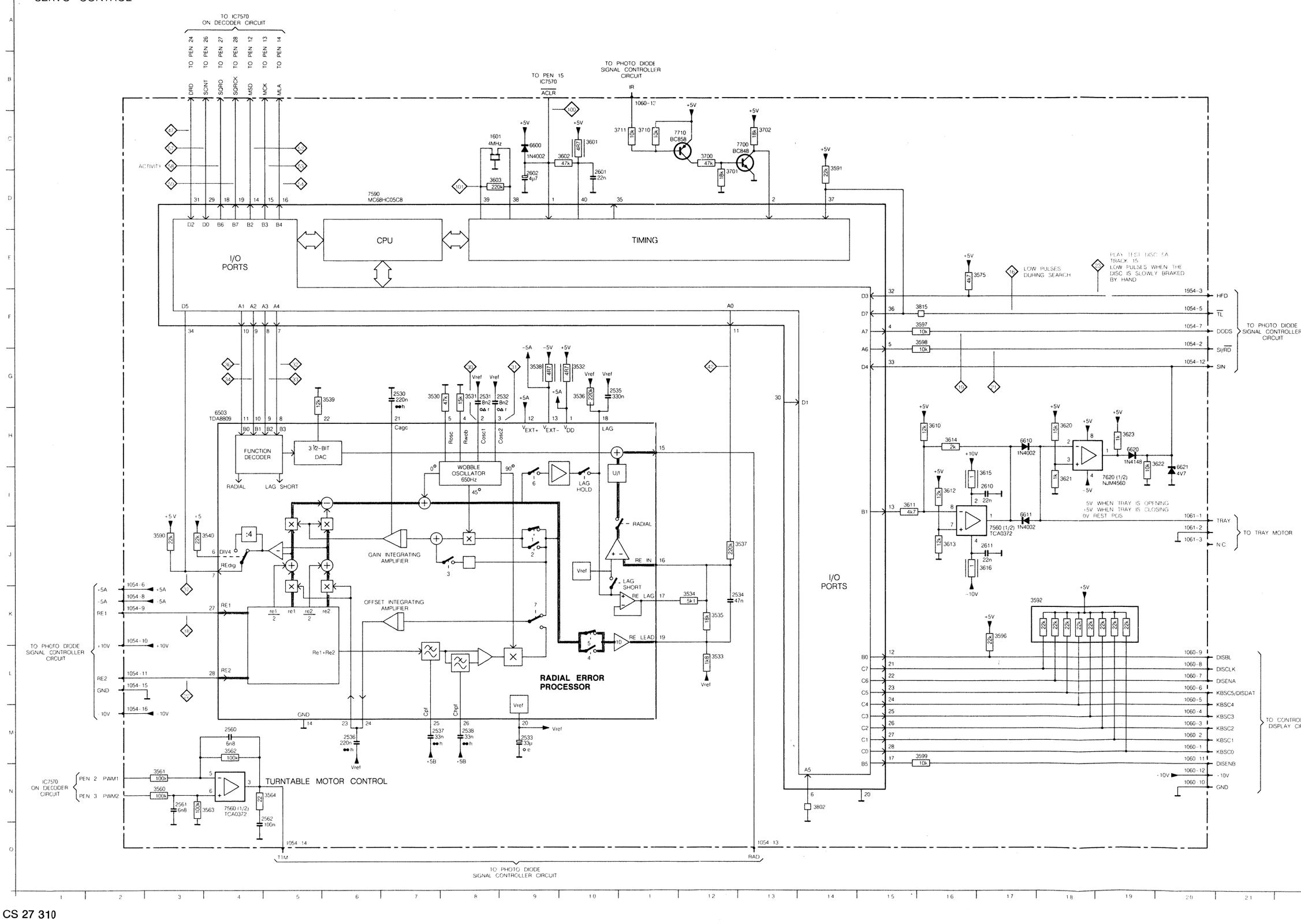


SK3 A3
1051 C1
1053 A2
2500 C2
2501 C2
2502 D2
2503 C3
2504 C3
2505 B2
2506 C2
2507 D2
2508 C2
2509 B2
2510 D1
2511 D3
2514 C3
2515 D3
2516 B3
2517 A2
2540 A3
2541 A2
2542 B3
2543 A3
2550 E1
2551 D1
2552 D2
3500 B2
3501 C2
3502 C2
3503 B1
3504 C2
3505 C2
3506 C3
3507 B2
3510 D3
3511 B3
3512 D3
3513 A1
3514 B3
3515 A1
3516 A1
3517 B3
3518 B3
3519 A3
3541 B2
3542 B2
3543 A3
3544 A2
3545 B3
3546 B3
3550 D1
3551 D1
3552 E2
3553 A3
3554 B1
3555 B1
3806 C1
3816 C2
3817 D3
3820 D3
6540 A3
6541 B3
6550 C3
7500 D2
7510 B3
7550 E1
9545 C1
9580 A1
9581 D1
9582 A3
9583 B2
9586 D1
9587 D1
9588 C1

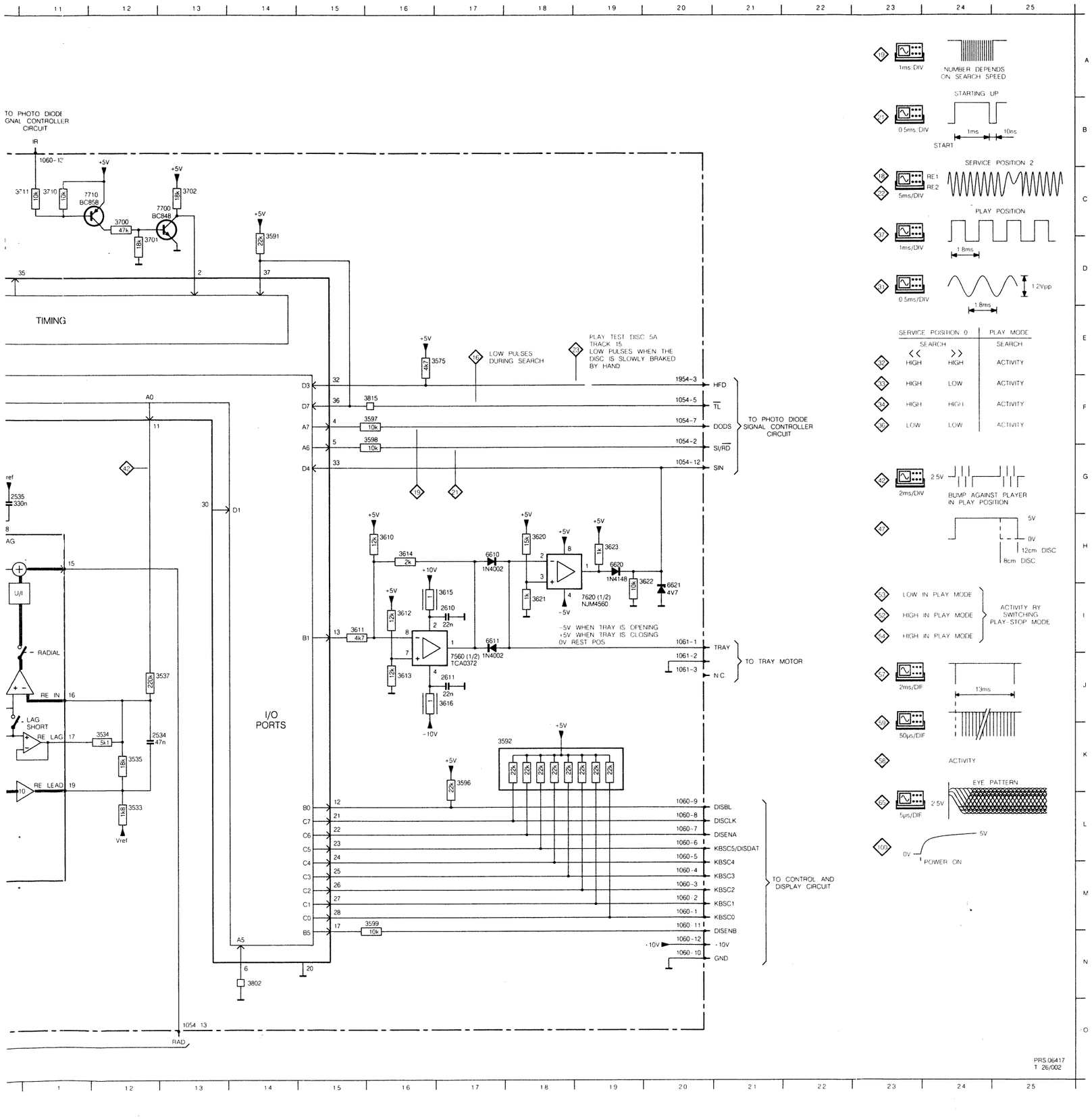


SK3 A3
1051 C1
1053 A2
1056 E1
2500 C2
2501 C2
2502 D2
2503 C3
2504 C3
2505 B2
2506 C2
2507 C2
2508 C2
2509 B2
2510 D2
2511 C3
2514 C3
2515 D3
2516 B3
2517 A2
2540 A3
2541 A2
2542 A3
2543 A3
2550 E2
2551 D1
2552 D2
3500 B2
3501 C2
3502 C2
3503 A2
3504 C2
3505 C3
3506 C3
3507 B2
3510 D3
3511 B3
3512 D3
3513 A2
3514 B3
3515 A1
3516 A2
3517 B3
3518 B3
3519 A3
3541 A3
3542 A2
3543 A3
3544 A2
3545 A3
3546 A3
3550 D2
3551 D1
3552 D2
3553 A3
3554 B2
3555 B1
3806 C1
3816 C2
3817 D3
3820 C3
6540 A3
6541 A3
6550 C3
7500 C2
7510 B3
7550 E2
9545 C1
9580 A1
9581 D1
9582 A3
9583 B2
9586 D1
9587 D1
9588 C2

SERVO CONTROL



CS 27 310

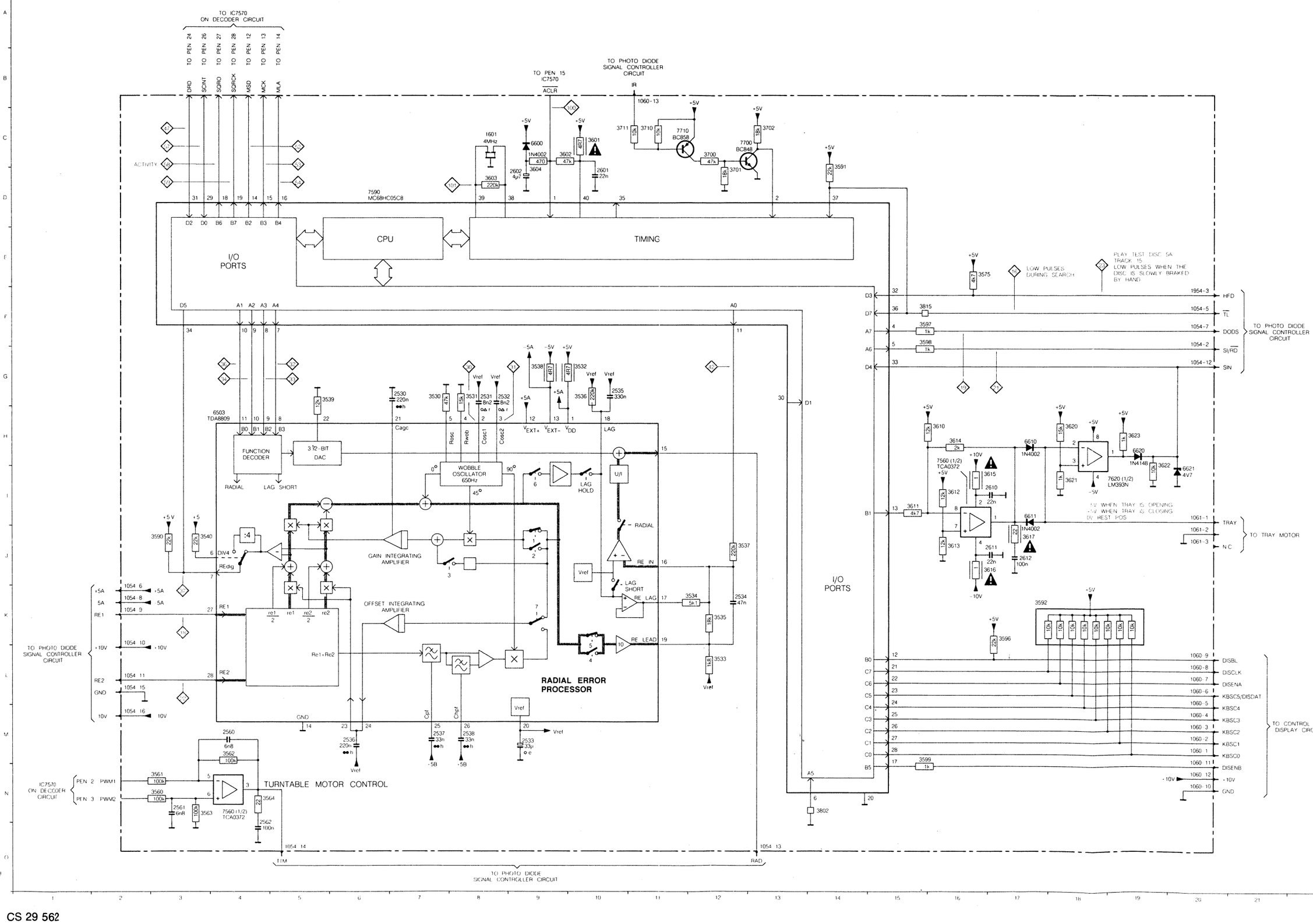


1601	C	8
2530	G	7
2531	G	8
2532	G	9
2533	M	9
2534	K	13
2535	G	11
2536	M	6
2537	M	8
2538	M	8
2560	M	4
2561	N	3
2562	N	5
2601	D	10
2602	D	9
2610	I	17
2611	J	17
3530	G	7
3531	G	8
3532	G	10
3533	L	12
3534	K	12
3535	K	12
3575	E	17
3536	G	10
3537	J	13
3538	G	9
3539	G	6
3540	J	4
3560	N	3
3561	N	3
3562	M	4
3563	N	4
3564	N	5
3590	J	3
3591	C	14
3592	K	18
3596	K	17
3597	F	16
3598	F	16
3599	M	16
3601	C	10
3602	C	10
3603	D	8
3610	H	16
3611	I	15
3612	I	16
3613	J	16
3614	H	16
3615	I	17
3616	J	17
3620	H	18
3621	I	18
3622	H	20
3623	H	19
3700	C	12
3701	D	12
3702	C	13
3710	C	11
3711	C	11
3802	N	14
3815	F	16
6503	H	4
6600	C	9
6610	H	17
6611	I	17
6620	H	19
6621	I	20
7560	J	17
7560	N	4
7590	D	6
7620	I	19
7700	C	13
7710	C	12

5-5a

SERVO CONTROL

SERVO CONTROL



) PHOTO DIODE
NAL CONTROLLER
CIRCUIT

IR
1060-13
+5V
3711 10k
3710 10k
7710 BC858
3700 47k
18k 3701
7700 BC848
18k 3702
+5V
2% 3591
35
2
37
TIMING
+5V
4k7 3575
16 LOW PULSES DURING SEARCH
23 PLAY TEST DISC 5A TRACK 15 LOW PULSES WHEN THE DISC IS SLOWLY BRAKED BY HAND
D3 32 1954-3 HFD
D7 36 3815 1054-5 $\overline{TL}$
A7 4 3597 1k 1054-7 DODS
A6 5 3598 1k 1054-2 SI/$\overline{RD}$
D4 33 1054-12 SIN
TO PHOTO DIODE SIGNAL CONTROLLER CIRCUIT
A0
11
42
30 D1
2535 330n
U/I
15
RADIAL
RE IN 16
LAG SHORT
RE LAG 17
3534 5k1
2534 47n
18k 3535
RE LEAD 19
10
1k8 3533
Vref
+5V 3610 12k
3614 2k
+10V
7560 (1/2) TCA0372
+5V
3612 12k
3613 12k
3615
2610 22n
2
8
1
7
4
2611 22n
3616
-10V
2612 100n
B1 13 3611 4k7
+5V 3620 12k
8
2
3
1
4
7620 (1/2) LM393N
-5V
3621 1k
+5V 3623 1k
6620 1N4148
3622 10k
6621 4V7
6610 1N4002
6611 1N4002
22 3617
-5V WHEN TRAY IS OPENING
+5V WHEN TRAY IS CLOSING
0V REST POS
1061-1 TRAY
1061-2
1061-3 N.C
TO TRAY MOTOR
I/O PORTS
+5V 3592 10k 10k 10k 10k 10k 10k 10k 10k
+5V 22k 3596
B0 12 1060-9 DISBL
C7 21 1060-8 DISCLK
C6 22 1060-7 DISENA
C5 23 1060-6 KBSC5/DISDAT
C4 24 1060-5 KBSC4
C3 25 1060-4 KBSC3
C2 26 1060-3 KBSC2
C1 27 1060-2 KBSC1
C0 28 1060-1 KBSC0
B5 17 3599 1k 1060-11 DISENB
-10V 1060-12 -10V
1060-10 GND
TO CONTROL AND DISPLAY CIRCUIT
A5
6
20
3802
1054 13
RAD

19 1ms/DIV NUMBER DEPENDS ON SEARCH SPEED
21 0.5ms/DIV STARTING UP 1ms 10ns START
18 RE1
20 RE2 5ms/DIV SERVICE POSITION 2
17 1ms/DIV PLAY POSITION 1.8ms
31 0.5ms/DIV 1.2Vpp 1.8ms

	SERVICE POSITION 0 SEARCH <<	SERVICE POSITION 0 SEARCH >>	PLAY MODE SEARCH
32	HIGH	HIGH	ACTIVITY
33	HIGH	LOW	ACTIVITY
34	HIGH	HIGH	ACTIVITY
36	LOW	LOW	ACTIVITY

42 2ms/DIV 2.5V BUMP AGAINST PLAYER IN PLAY POSITION
47 5V 0V 12cm DISC 8cm DISC
53 LOW IN PLAY MODE
52 HIGH IN PLAY MODE
54 HIGH IN PLAY MODE
ACTIVITY BY SWITCHING PLAY-STOP MODE
57 2ms/DIF 12ms
59 50µs/DIF
58 ACTIVITY
62 5µs/DIF 2.5V EYE PATTERN
100 5V 0V POWER ON

1601 C8
2530 G7
2531 G8
2532 G8
2533 M9
2534 K12
2535 G10
2536 M6
2537 M7
2538 M8
2560 M4
2561 N3
2562 O4
2601 D10
2602 D9
2610 I17
2611 J17
2612 J17
3530 G7
3531 G8
3532 G10
3533 L12
3534 K12
3535 K12
3536 G10
3537 J12
3538 G9
3539 G5
3540 J3
3560 N3
3561 N3
3562 M4
3563 N3
3564 N4
3575 E16
3590 J3
3591 D14
3592 K17
3596 K17
3597 F15
3598 F15
3599 M15
3601 C10
3602 C9
3603 D8
3604 D9
3610 H16
3611 I15
3612 I16
3613 J16
3614 H16
3615 I16
3616 J16
3617 J17
3620 H18
3621 I18
3622 I19
3623 H19
3700 C12
3701 D12
3702 C13
3710 C11
3711 C10
3802 N14
3815 F15
6503 H4
6600 C9
6610 H17
6611 I17
6620 H19
6621 I20
7560 H16
7560 N4
7590 D6
7620 I19
7700 C12
7710 C11

PRS 06417
T 26/012

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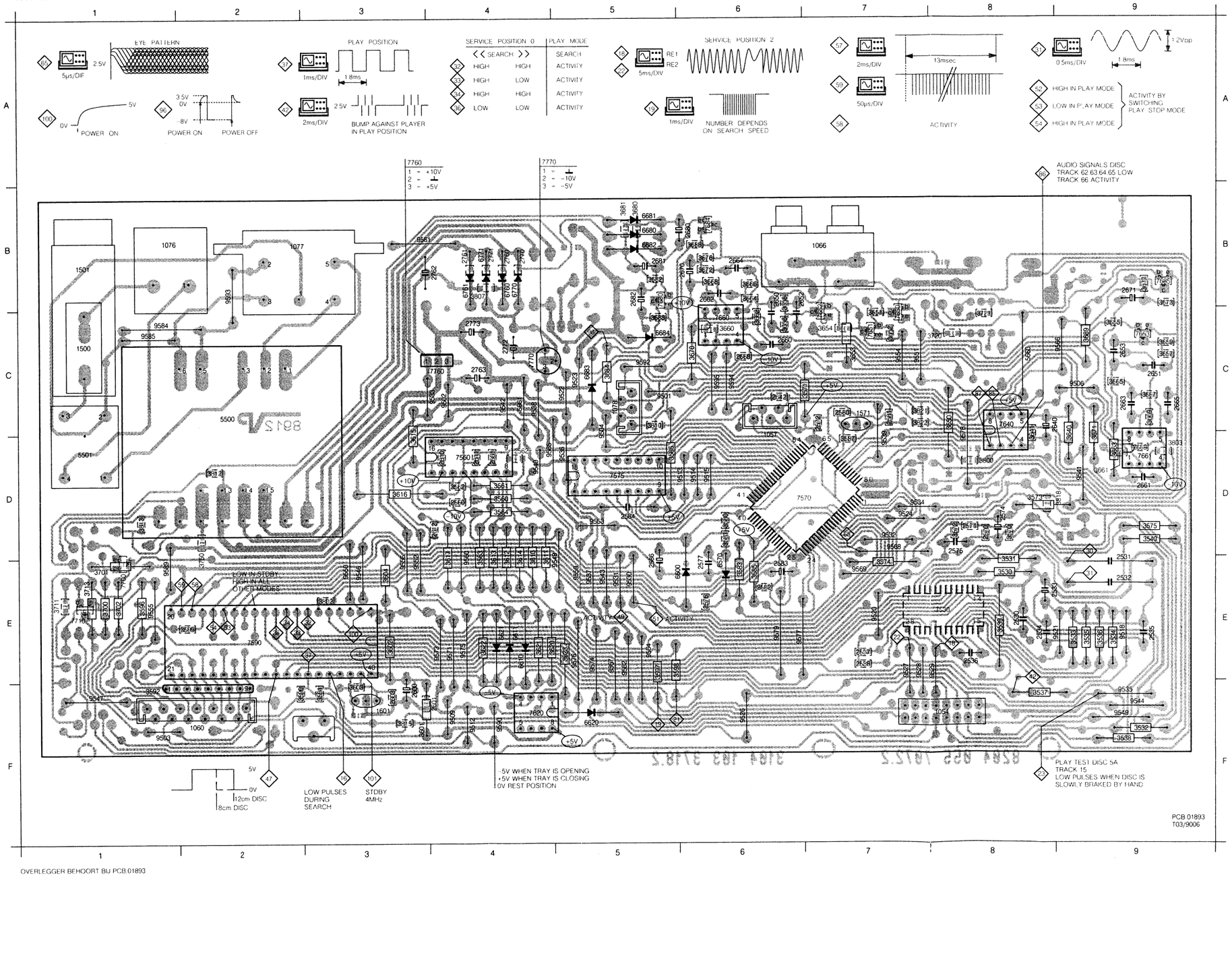
SERVO CONTROL AND DECODER PANEL COMPONENT SIDE

1054 F8	2531 E9	2571 D8	2600 F3	2660 C6	2682 B5	3533 E9	3564 D4	3587 D7	3610 E4	3640 D9	3660 C6	3672 B6	3700 E1	3810 C5	6600 E6	6770 B4	7653 C9	9503 F1	9523 C5	9536 D5	9549 F9	9564 E5	9578 D8
1057 D6	2532 E9	2572 C7	2601 F4	2661 D9	2760 B4	3534 E9	3570 D8	3590 F2	3611 E4	3641 D8	3661 D9	3673 B9	3701 E1	3812 D2	6610 E4	6771 B4	7660 C6	9504 D5	9524 D7	9537 E5	9550 E3	9565 D4	9579 E6
1060 F2	2533 E9	2573 E9	2574 D8	2603 F3	2662 B6	3535 E9	3571 C7	3591 F3	3612 E4	3650 C8	3662 C6	3676 B6	3702 E1	3813 D1	6611 E4	7530 E8	7661 D9	9506 C9	9526 F6	9538 C4	9551 C7	9566 C9	9584 C1
1066 B7	2534 E8	2575 D8	2610 D4	2663 C9	2762 B4	3536 E9	3572 D8	3592 F1	3613 E4	3651 C7	3663 D9	3677 B9	3711 E1	3815 F3	6620 F5	7560 D4	7680 B5	9509 F4	9527 E7	9539 D7	9552 E3	9567 E5	9585 C1
1076 B1	2535 E9	2576 E6	2611 D4	2664 B6	2763 C4	3537 F8	3573 D8	3596 E1	3614 E4	3652 C7	3664 B6	3680 B5	3713 E1	3818 D9	6621 E4	7570 D6	7684 B6	9512 F4	9528 E7	9540 D4	9553 D5	9568 D7	9589 E1
1077 B2	2536 E8	2577 E6	2612 D4	2665 C9	2770 B4	3538 F9	3574 E7	3597 E5	3615 D3	3653 C7	3665 C9	3681 B5	3720 C7	3821 C7	6680 B5	7575 D5	7685 B9	9513 D6	9529 E8	9541 D9	9554 C7	9569 E7	9590 F4
1078 C5	2537 E7	2580 C7	2640 D9	2668 C6	2771 B4	3539 E8	3575 D9	3598 E5	3616 D3	3654 C7	3666 B6	3682 B5	3721 C8	3822 C7	6681 B5	7590 E2	7700 E1	9514 D6	9530 E5	9542 C4	9555 E1	9571 E4	9592 C5
1500 C1	2538 E7	2581 C7	2642 C6	2669 D9	2772 C4	3540 D9	3580 D6	3599 E2	3617 E4	3655 C9	3667 C9	3683 C5	3750 E2	5500 C2	6682 B5	7620 F4	7710 E1	9515 D6	9531 E5	9543 E5	9556 E3	9573 E4	9593 B2
1501 B1	2560 D4	2582 E6	2650 B6	2670 B6	2773 C4	3560 D4	3581 D6	3601 F3	3620 E4	3656 C6	3668 B6	3684 C5	3800 D8	5501 D1	6683 C5	7640 C8	7760 C4	9518 E9	9532 D7	9544 F9	9559 E5	9574 E5	9594 C6
1571 C7	2561 D4	2583 E6	2651 C9	2671 B9	3530 E8	3561 D4	3583 E6	3602 E3	3621 E4	3657 C9	3669 C9	3685 C5	3802 E3	5660 C8	6684 C5	7650 C7	7770 C4	9520 E7	9533 C4	9546 E3	9560 E4	9575 E4	9595 C6
1601 F3	2562 D4	2584 D5	2652 B7	2680 B6	3531 E8	3562 D4	3585 E6	3603 F3	3622 E4	3658 C6	3670 C6	3688 B6	3803 D9	5661 C4	6760 B4	7651 C7	9501 C5	9521 E9	9534 D7	9547 F1	9561 B3	9576 E5	
2530 E8	2570 D8	2586 E5	2653 C9	2681 B5	3532 F9	3563 E4	3586 D5	3604 E3	3623 E5	3659 C9	3671 D9	3689 C9	3807 B4	6570 E6	6761 B4	7652 C7	9502 C4	9522 C5	9535 F9	9548 E5	9562 E5	9577 E6	



OVERLEGGER BEHOORT BIJ PCB.01893

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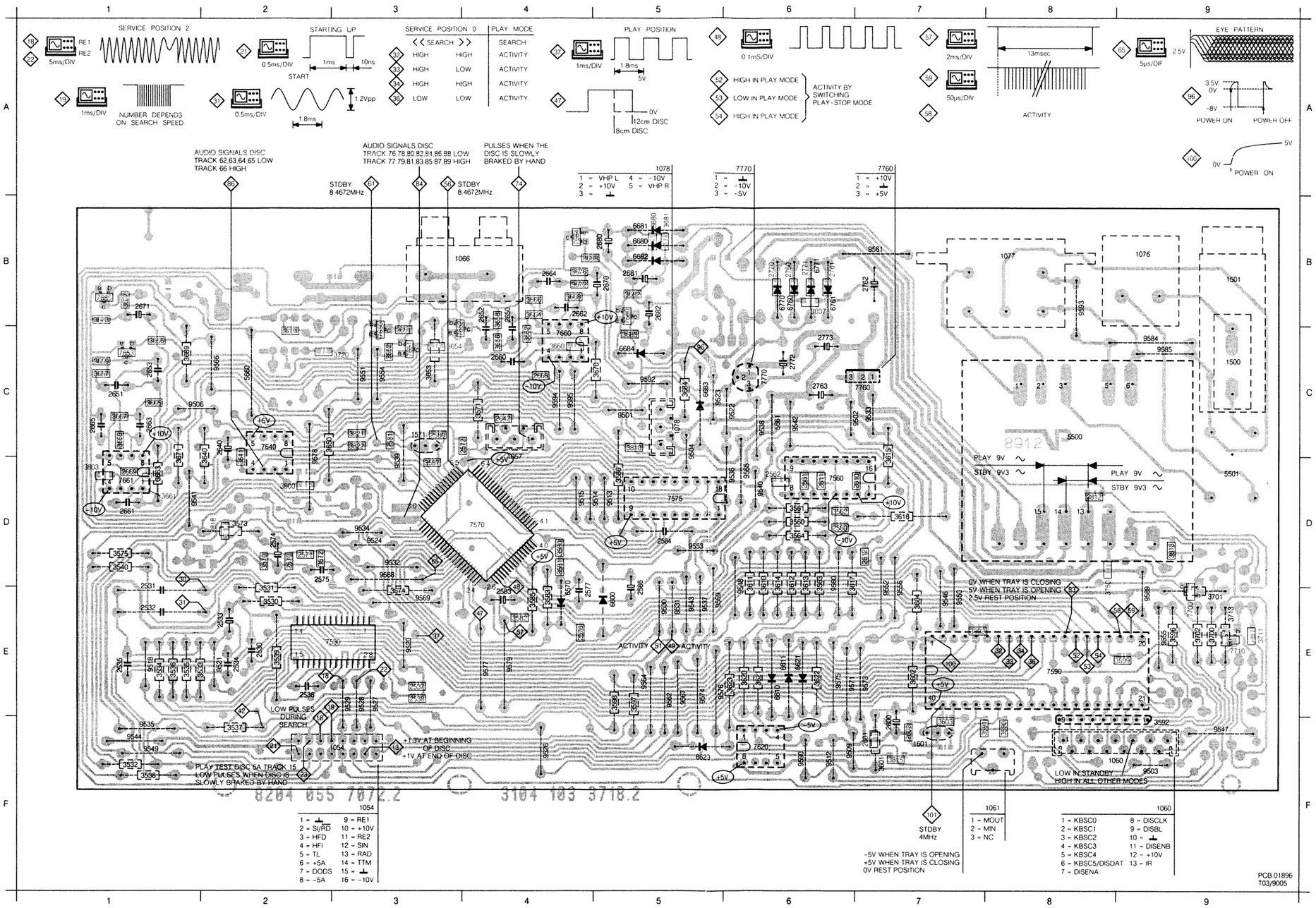

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1501	B9	3650	C2
1571	C3	3651	C3
1601	F7	3652	C3
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2532	E1	3655	C1
2533	E2	3656	C4
2534	E2	3657	C1
2535	E1	3658	B4
2536	E2	3659	C1
2537	E3	3660	C4
2538	E3	3661	D1
2560	D6	3662	C4
2561	D6	3663	D1
2562	D6	3664	B4
2570	D2	3665	C1
2571	D2	3666	B4
2572	C4	3667	C1
2574	D2	3668	B4
2575	D2	3669	C1
2576	E4	3670	C5
2577	E4	3671	D1
2580	C3	3672	B4
2581	C3	3673	B1
2582	E4	3676	B4
2583	E4	3677	B1
2584	D5	3680	B5
2586	E5	3681	B5
2600	F7	3682	B5
2601	F7	3683	C5
2603	F7	3684	C5
2610	D7	3685	C5
2611	D6	3688	B4
2612	D7	3689	C1
2640	C2	3700	E9
2642	C4	3701	E9
2650	B4	3702	E9
2651	C1	3711	E9
2652	B4	3713	E9
2653	C1	3720	C3
2660	C4	3721	C2
2661	D1	3750	E8
2662	B4	3800	D2
2663	C1	3802	E7
2664	B4	3803	D1
2665	C1	3807	B6
2668	C4	3810	C5
2669	D1	3812	D8
2670	B5	3813	D9
2671	B1	3815	F7
2680	B5	3818	D2
2681	B5	3821	C3
2682	B5	3822	C3
2760	B6	5500	C8
2761	B6	5501	D9
2762	B7	5660	C2
2763	C6	5661	C6
2770	B6	6570	E4
2771	B6	6600	E5
2772	C6	6610	E6
2773	C6	6611	E6
3530	E2	6620	F5
3531	E2	6621	E6
3532	F1	6680	B5
3533	E2	6681	B5
3534	E1	6682	B5
3535	E1	6683	C5
3536	E1	6684	C5
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3539	E2	6770	B6
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3560	D6	7530	E2
3561	D6	7560	D6
3562	D6	7570	D4
3563	E6	7575	D5
3564	D6	7590	E8
3570	D2	7620	F6
3571	C4	7640	C2
3572	D2	7650	C3
3573	D2	7651	C3
3574	E3	7652	C4
3575	D1	7653	C1
3580	D4	7660	C4
3581	D4	7661	D1
3583	E4	7680	B5
3585	E4	7684	B4
3586	D5	7685	B1
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		9531	E5
		9532	D3
		9533	C7
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		9535	F1
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		9538	C6
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		9540	D6
		9541	D1
		9542	C6
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		9592	C5
		9593	B8
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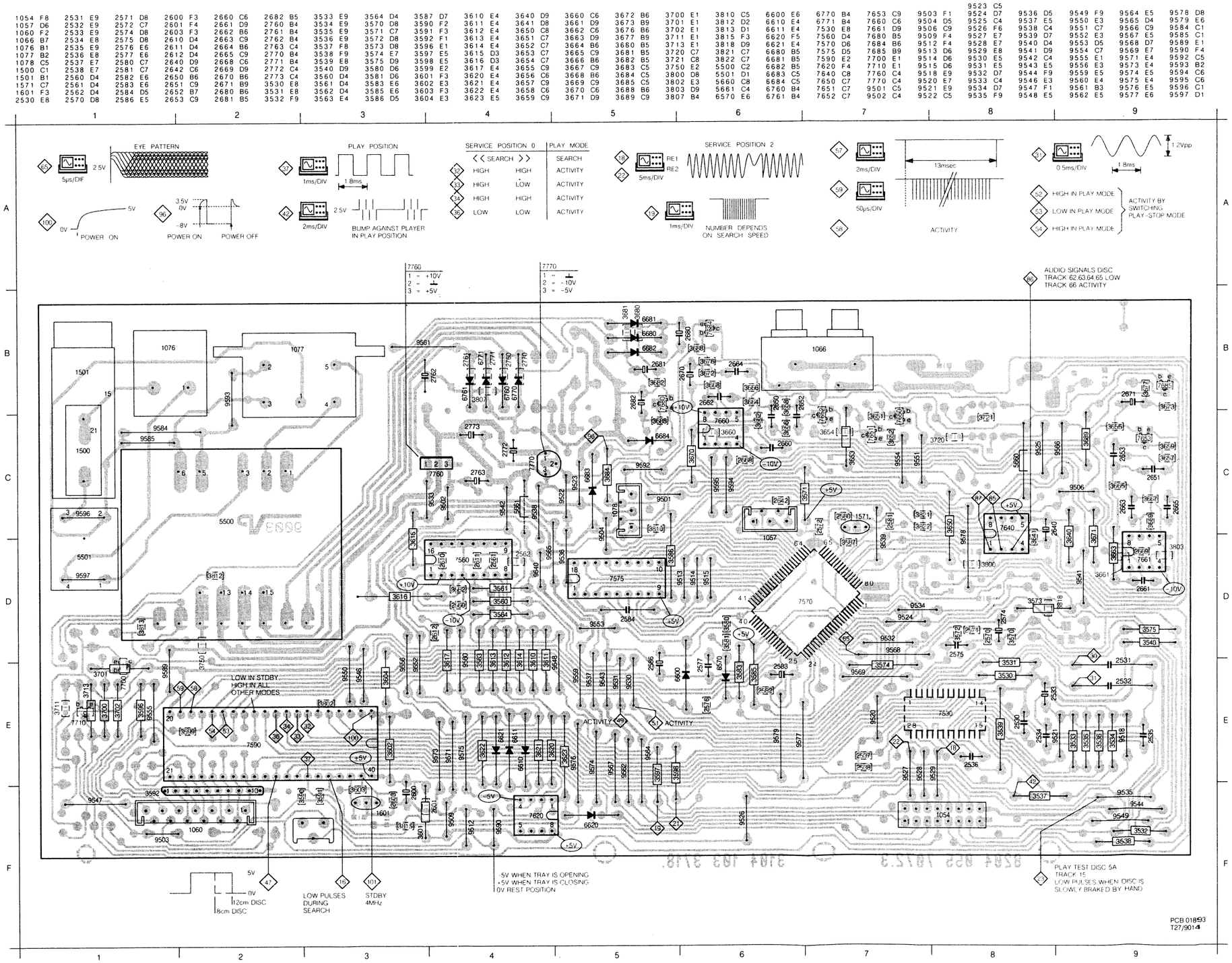
OVERLEGGER BEHOORT BIJ PCB 01886

5-6a

SERVO CONTROL AND DECODER PANEL COMPONENT SIDE



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1057	D6	2532	E9	2572	C7	2601	F4	2661	D9	2760	B4	3534	E9	3570	D8	3590	F2	3611	E4	3641	D8	3661	D9	3673	B9	3701	E1	3812	D2	6610	E4
1060	F2	2533	E9	2574	D8	2603	F3	2662	B6	2761	B4	3535	E9	3571	C7	3591	F3	3612	E4	3650	C8	3662	C6	3676	B6	3702	E1	3813	D1	6611	E4
1066	B7	2534	E8	2575	D8	2610	D4	2663	C9	2762	B4	3536	E9	3572	D8	3592	F1	3613	E4	3651	C7	3663	D9	3677	B9	3711	E1	3815	F3	6620	F5
1076	B1	2535	E9	2576	E6	2611	D4	2664	B6	2763	C4	3537	F8	3573	D8	3596	E1	3614	E4	3652	C7	3664	B6	3680	B5	3713	E1	3818	D9	6621	E4
1077	B2	2536	E8	2577	E6	2612	D4	2665	C9	2770	B4	3538	F9	3574	E7	3597	E5	3615	D3	3653	C7	3665	C9	3681	B5	3720	C7	3821	C7	6680	B5
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1500	C1	2538	E7	2581	C7	2642	C6	2669	D9	2772	C4	3540	D9	3580	D6	3599	E2	3617	E4	3655	C9	3667	C9	3683	C5	3750	E2	5500	C2	6682	B5
1501	B1	2560	D4	2582	E6	2650	B6	2670	B6	2773	C4	3560	D4	3581	D6	3601	F3	3620	E4	3656	C6	3668	B6	3684	C5	3800	D8	5501	D1	6683	C5
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1601	F3	2562	D4	2584	D5	2652	B7	2680	B6	3531	E8	3562	D4	3585	E6	3603	F3	3622	E4	3658	C6	3670	C6	3688	B6	3803	D9	5661	C4	6760	B4
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6770	B4	7653	C9	9503	F1	9523	C5																								
6771	B4	7660	C6	9504	D5	9524	D7	9536	D5	9549	F9	9564	E5	9578	D8																
7530	E8	7661	D9	9506	C9	9525	C4	9537	E5	9550	E3	9565	D4	9579	E6																
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7570	D6	7684	B6	9512	F4	9527	E7	9539	D7	9552	E3	9567	E5	9585	C1																
7575	D5	7685	B9	9513	D6	9528	E7	9540	D4	9553	D5	9568	D7	9589	E1																
7590	E2	7700	E1	9514	D6	9529	E8	9541	D9	9554	C7	9569	E7	9590	F4																
7620	F4	7710	E1	9515	D6	9530	E5	9542	C4	9555	E1	9571	E4	9592	C5																
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7650	C7	7770	C4	9520	E7	9532	D7	9544	F9	9559	E5	9574	E5	9594	C6																
7651	C7	9501	C5	9521	E9	9533	C4	9546	E3	9560	E4	9575	E4	9595	C6																
7652	C7	9502	C4	9522	C5	9534	D7	9547	F1	9561	B3	9576	E5	9596	C1																
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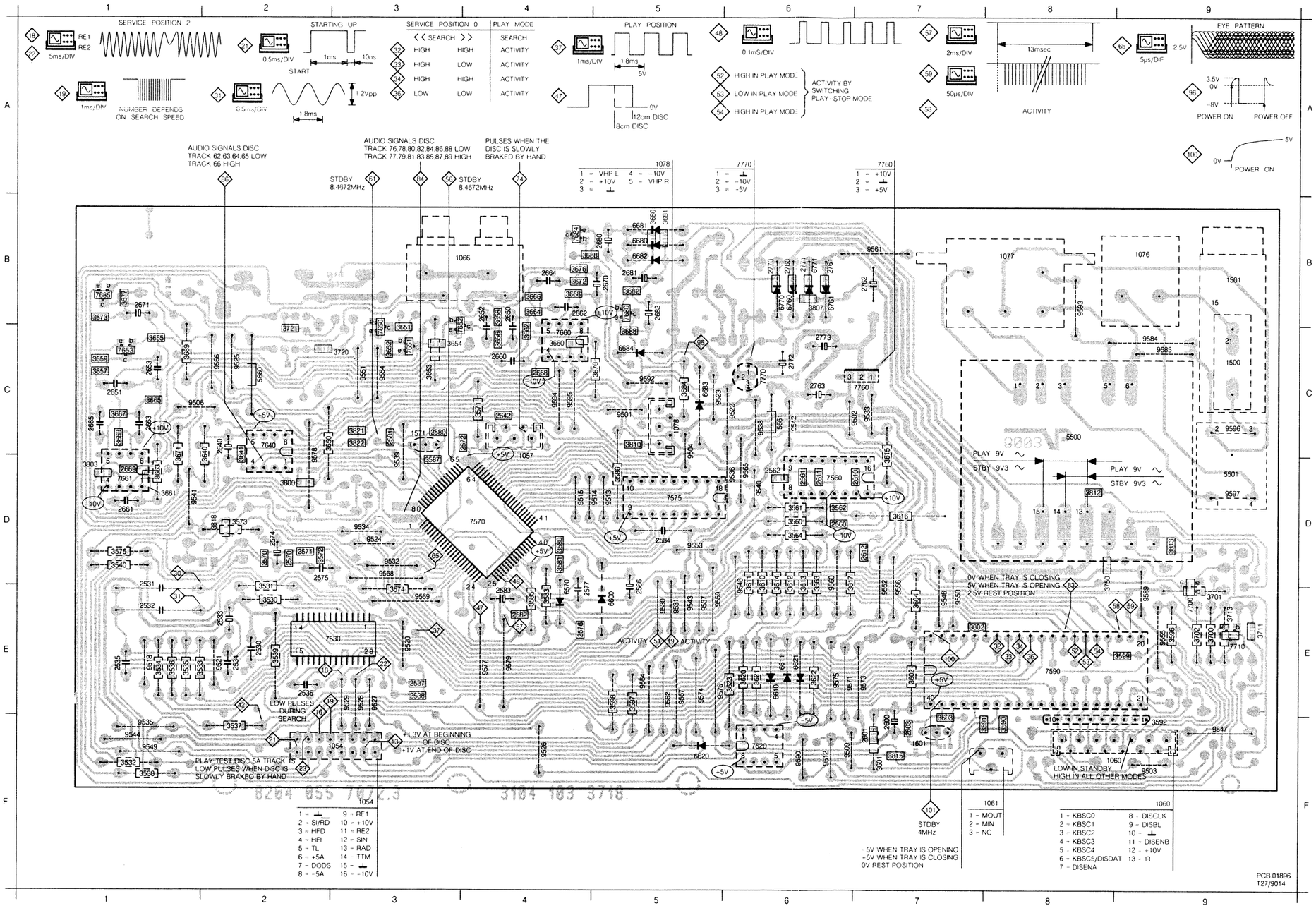
5-7a


SERVICE POSITION 2
RE1
RE2
5ms/DIV
1ms/DIV
NUMBER DEPENDS ON SEARCH SPEED
0.5ms/DIV
1.8ms
1.2Vpp
STARTING UP
1ms
10ns
START
SERVICE POSITION 0
PLAY MODE
<< SEARCH >>
SEARCH
HIGH HIGH ACTIVITY
HIGH LOW ACTIVITY
HIGH HIGH ACTIVITY
LOW LOW ACTIVITY
PLAY POSITION
1ms/DIV
1.8ms
5V
0V
12cm DISC
8cm DISC
0.1mS/DIV
HIGH IN PLAY MODE
LOW IN PLAY MODE
HIGH IN PLAY MODE
ACTIVITY BY SWITCHING PLAY-STOP MODE
2ms/DIV
50µs/DIV
13msec
ACTIVITY
5µs/DIF
EYE PATTERN
2.5V
3.5V
0V
-8V
POWER ON
POWER OFF
5V
0V
POWER ON
AUDIO SIGNALS DISC
TRACK 62,63,64,65 LOW
TRACK 66 HIGH
AUDIO SIGNALS DISC
TRACK 76,78,80,82,84,86,88 LOW
TRACK 77,79,81,83,85,87,89 HIGH
PULSES WHEN THE DISC IS SLOWLY BRAKED BY HAND
STDBY 8.4572MHz
STDBY 8.4672MHz
1078
1 = VHP L 4 = -10V
2 = +10V 5 = VHP R
3 =
7770
1 =
2 = -10V
3 = -5V
7760
1 = +10V
2 =
3 = +5V
1066
1077
1076
1501
1500
5500
5501
7560
7570
7575
7590
7530
7620
7640
7650
7651
7652
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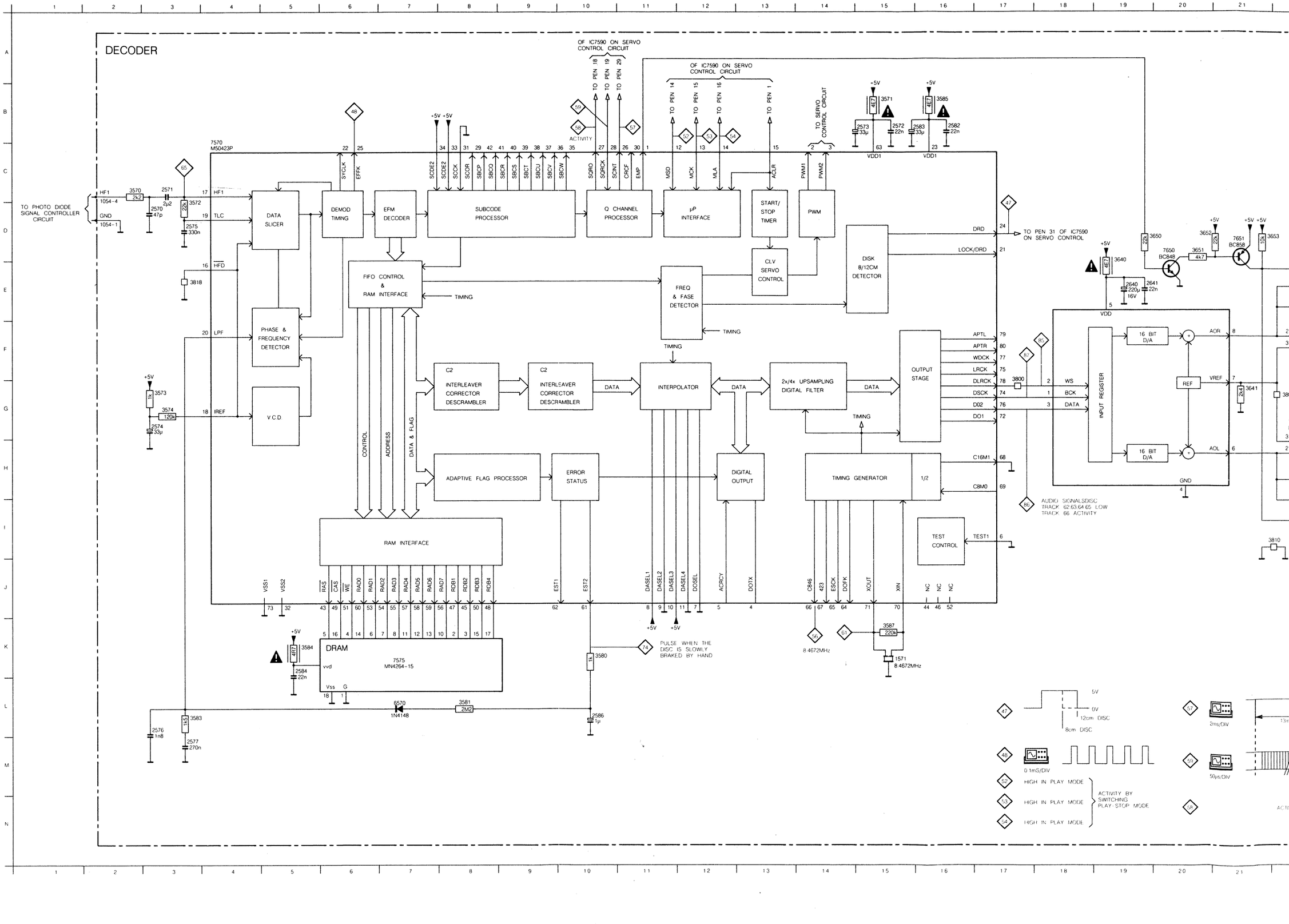
DECODER


DECODER
7570
M50423P
TO PHOTO DIODE SIGNAL CONTROLLER CIRCUIT
HF1
GND
DATA SLICER
DEMOD TIMING
EFM DECODER
SUBCODE PROCESSOR
Q CHANNEL PROCESSOR
µP INTERFACE
START/ STOP TIMER
PWM
CLV SERVO CONTROL
DISK 8/12CM DETECTOR
FIFO CONTROL & RAM INTERFACE
FREQ & FASE DETECTOR
PHASE & FREQUENCY DETECTOR
VCO
C2 INTERLEAVER CORRECTOR DESCRAMBLER
C2 INTERLEAVER CORRECTOR DESCRAMBLER
INTERPOLATOR
2x/4x UPSAMPLING DIGITAL FILTER
OUTPUT STAGE
ADAPTIVE FLAG PROCESSOR
ERROR STATUS
DIGITAL OUTPUT
TIMING GENERATOR
1/2
TEST CONTROL
RAM INTERFACE
DRAM
7575
MN4264-15
INPUT REGISTER
16 BIT D/A
REF
TO PEN 31 OF IC7590 ON SERVO CONTROL
AUDIO SIGNALSDISC TRACK 62 63 64 65 LOW TRACK 66 ACTIVITY
PULSE WHEN THE DISC IS SLOWLY BRAKED BY HAND
8.4672MHz
ACTIVITY BY SWITCHING PLAY-STOP MODE
HIGH IN PLAY MODE
0.1mS/DIV
2ms/DIV
50µs/DIV
12cm DISC
8cm DISC

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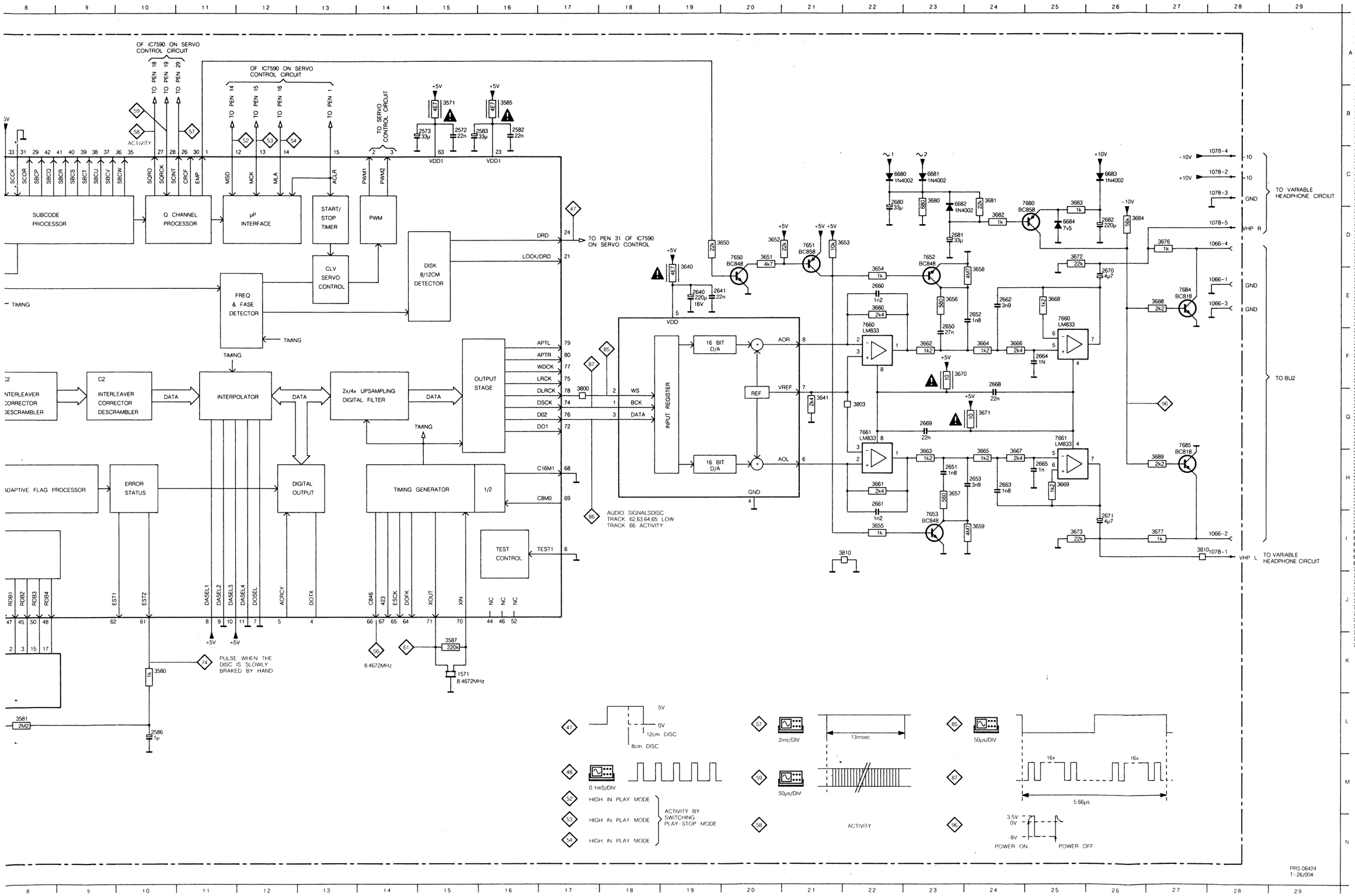

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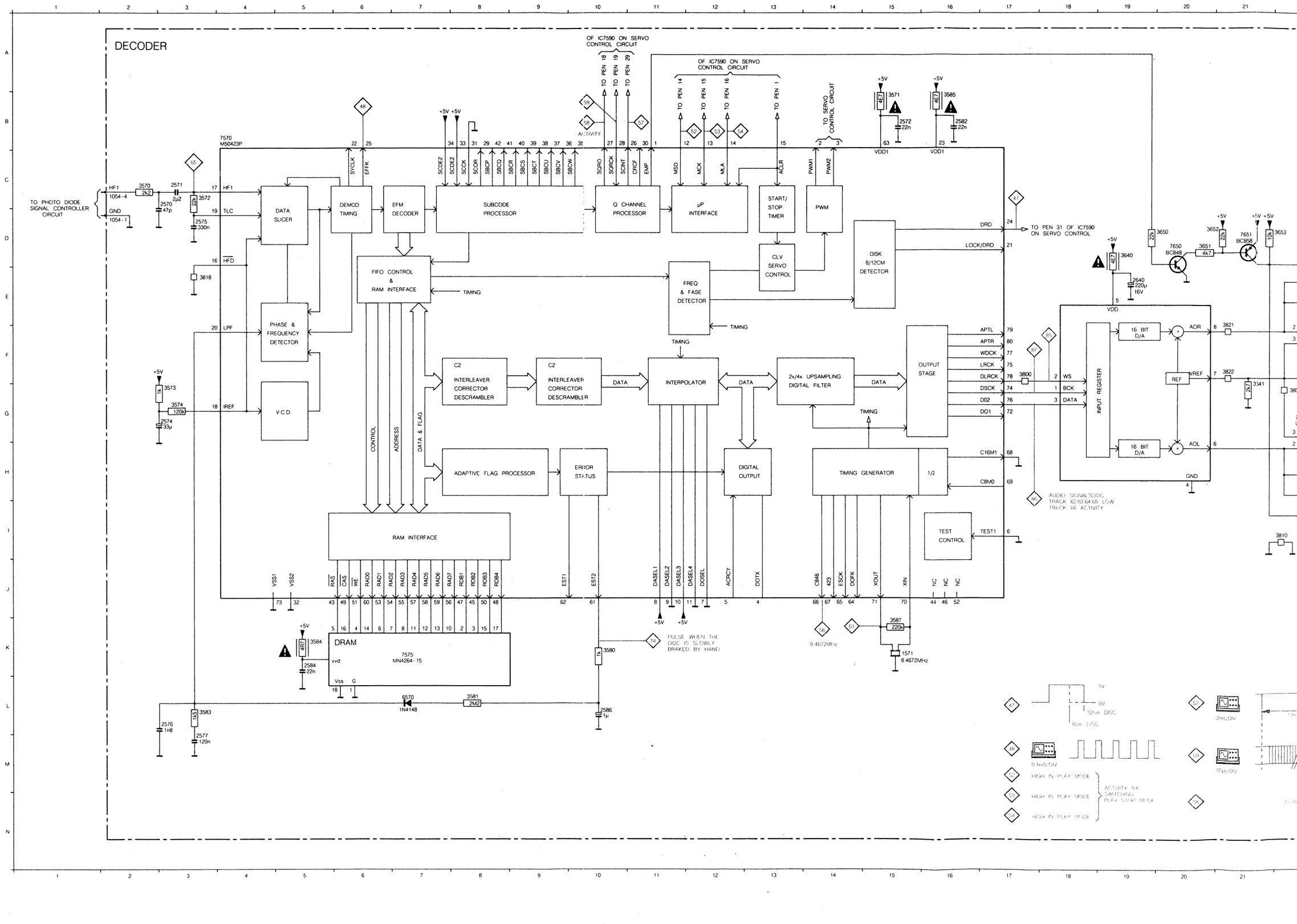
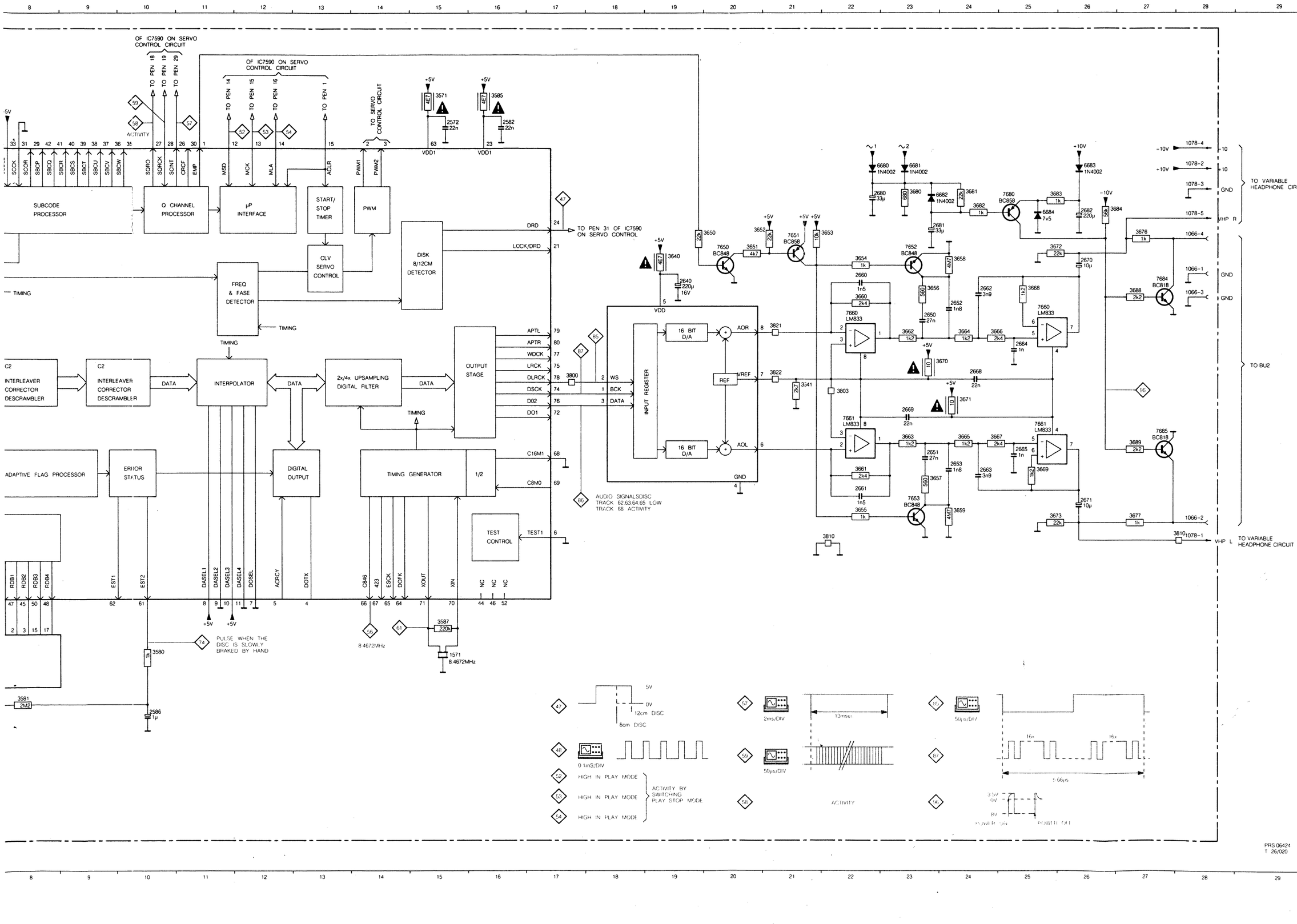
	2573	B15
	2574	G 3
A	2575	D 3
	2576	L 3
	2577	M 3
	2582	B16
	2583	B16
	2584	K 5
	2586	L10
	2640	E19
	2641	E20
B	2650	E23
	2651	H23
	2652	E24
	2653	H24
	2660	E22
	2661	H22
	2662	E24
	2663	H24
	2665	H25
	2668	F24
C	2669	G23
	2670	E26
	2671	I 26
	2680	C22
	2681	D23
	2682	D26
	3570	C 2
	3571	B15
	3572	C 3
	3573	G 3
D	3574	G 3
	3580	K10
	3581	L 8
	3583	L 3
	3584	K 5
	3585	B16
	3587	K15
	3640	D19
	3641	G21
E	3650	D20
	3651	D20
	3652	D20
	3653	D22
	3654	E22
	3655	I 22
	3656	E23
	3657	H23
	3658	E24
	3659	I 24
F	3660	E22
	3661	H22
	3662	F23
	3663	H23
	3664	F24
	3665	H24
	3666	F24
	3667	H24
	3668	E25
	3669	H25
G	3670	F23
	3671	G24
	3672	D25
	3673	I 25
	3676	D27
	3677	I 27
	3680	C23
	3681	C24
	3682	D24
	3683	C25
H	3684	D26
	3688	E27
	3689	H27
	3800	F17
	3803	G22
	3810	I 27
	3810	I 22
	3818	E 3
	6570	L 7
I	6680	C22
	6681	C23
	6682	C23
	6683	C26
	6684	D25
	7570	B 4
	7575	K 7
	7650	D20
	7651	D21
	7652	D23
J	7653	I 23
	7660	E22
	7660	E25
	7661	G22
	7661	G25
	7680	C25
	7684	E27
	7685	G27

DECODER


DECODER
OF IC7590 ON SERVO CONTROL CIRCUIT
TO PEN 18
TO PEN 19
TO PEN 29
TO PEN 14
TO PEN 15
TO PEN 16
TO PEN 1
TO SERVO CONTROL CIRCUIT
ACTIVITY
7570
M50423P
TO PHOTO DIODE SIGNAL CONTROLLER CIRCUIT
HF1
GND
DATA SLICER
DEMOD TIMING
EFM DECODER
SUBCODE PROCESSOR
Q CHANNEL PROCESSOR
µP INTERFACE
START/ STOP TIMER
PWM
FIFO CONTROL & RAM INTERFACE
TIMING
FREQ & FASE DETECTOR
CLV SERVO CONTROL
DISK 8/12CM DETECTOR
DRD
LOCK/DRD
TO PEN 31 OF IC7590 ON SERVO CONTROL
PHASE & FREQUENCY DETECTOR
LPF
V.C.O.
IREF
C2 INTERLEAVER CORRECTOR DESCRAMBLER
DATA
INTERPOLATOR
2x/4x UPSAMPLING DIGITAL FILTER
OUTPUT STAGE
APTL
APTR
WDCK
LRCK
DLRCK
DSCK
D02
D01
INPUT REGISTER
16 BIT D/A
AOR
AOL
VREF
REF
WS
BCK
DATA
VDD
GND
CONTROL
ADDRESS
DATA & FLAG
ADAPTIVE FLAG PROCESSOR
ERROR STATUS
DIGITAL OUTPUT
TIMING GENERATOR
1/2
C16M1
C8M0
AUDIO SIGNALS DISC TRACK 62,63,64,65 LOW TRACK 66 ACTIVITY
RAM INTERFACE
TEST CONTROL
TEST1
DRAM
7575
MN4264-15
PULSE WHEN THE DISC IS SLOWLY BRAKED BY HAND
8.4672MHz
HIGH IN PLAY MODE
ACTIVITY BY SWITCHING PLAY STOP MODE
5V
0V
12cm DISC
8cm DISC
2ms/DIV
0.1ms/DIV
5µs/DIV

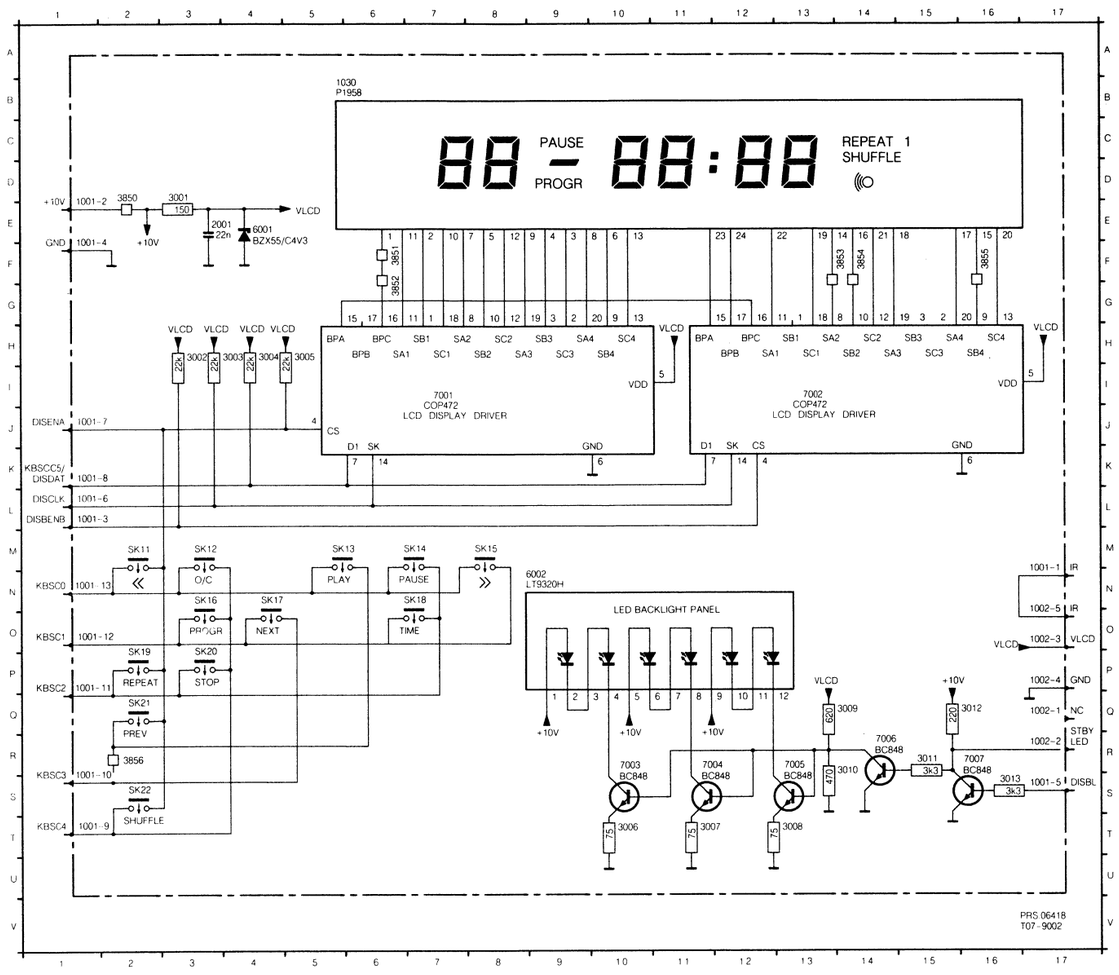
5-8a



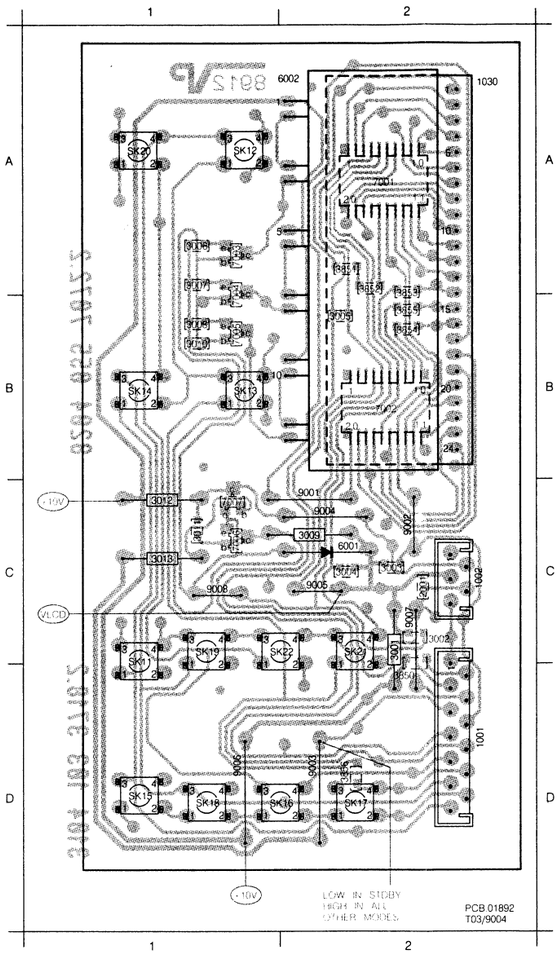
1571 K15
2570 C3
2571 C3
2572 B15
2574 G3
2575 D3
2576 L3
2577 M3
2582 B16
2584 K5
2586 L10
2640 E19
2650 E23
2651 H23
2652 E24
2653 H24
2660 E22
2661 H22
2662 E24
2663 H24
2664 F25
2665 H25
2668 F24
2669 G23
2670 D26
2671 I26
2680 C22
2681 D23
2682 D26
3570 C2
3571 B15
3572 C3
3573 G3
3574 G3
3580 K10
3581 L8
3583 L3
3584 K5
3585 B16
3587 K15
3640 D19
3641 G21
3650 D19
3651 D20
3652 D20
3653 D21
3654 D22
3655 I22
3656 E23
3657 H23
3658 D24
3659 I24
3660 E22
3661 H22
3662 F23
3663 G23
3664 F24
3665 G24
3666 F24
3667 G24
3668 E25
3669 H25
3670 F23
3671 G24
3672 D25
3673 I25
3676 D27
3677 I27
3680 C23
3681 C24
3682 C24
3683 C25
3684 D26
3688 E27
3689 H27
3800 F17
3803 G22
3810 I22
3810 I28
3818 E3
3821 F21
3822 F21
6570 L7
6680 C22
6681 C23
6682 C23
6683 C26
6684 D25
7570 B4
7575 K7
7650 D20
7651 D21
7652 D23
7653 H23
7660 E22
7660 E25
7661 G22
7680 C25
7684 E27
7685 G27

CONTROL AND DISPLAY

2001 E3 3001 D3 3002 H3 3003 H4 3004 H4 3005 H5 3006 T10 3007 T11 3008 T13 3009 Q14 3010 S14 3011 R15 3012 Q16 3013 S16 3850 D2 3851 F6 3852 G6 3853 F14 3854 F14 3855 F16 3856 R2 6001 E4 7003 R10 7004 R11 7005 R13 7006 R14 7007 R16

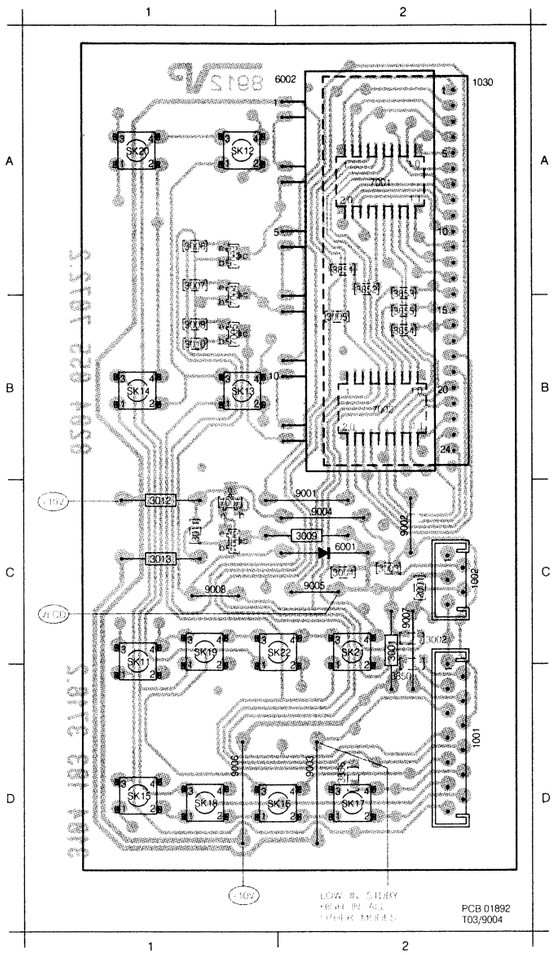


CONTROL AND DISPLAY PANEL COMPONENT SIDE

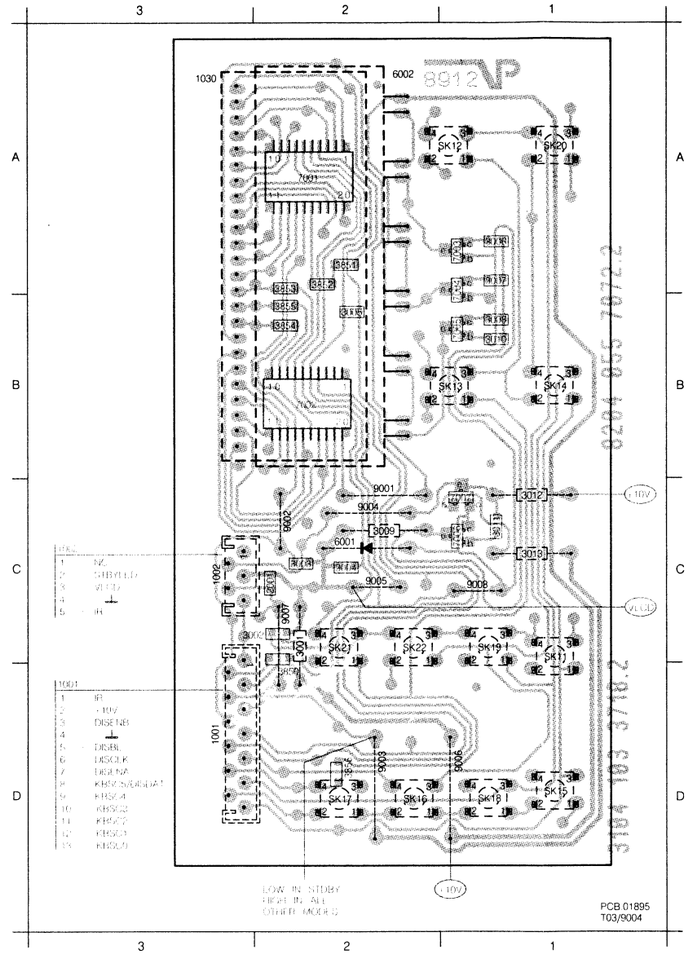


SK11 D1
SK12 A1
SK13 B1
SK14 B1
SK15 D1
SK16 D1
SK17 D2
SK18 D1
SK19 C1
SK20 A1
SK21 C2
SK22 C1
1001 D2
1002 C2
1030 A2
2001 C2
3001 C2
3002 C2
3003 C2
3004 C2
3005 B2
3006 A1
3007 A1
3008 B1
3009 C2
3010 B1
3011 C1
3012 C1
3013 C1
3850 D2
3851 A2
3852 A2
3853 B2
3854 B2
3855 B2
3856 D2
6001 C2
6002 A1
7001 A2
7002 B2
7003 A1
7004 B1
7005 B1
7006 C1
7007 C1
9001 C2
9002 C2
9003 D2
9004 C2
9005 C2
9006 D1
9007 C2
9008 C1

CONTROL AND DISPLAY PANEL COMPONENT SIDE

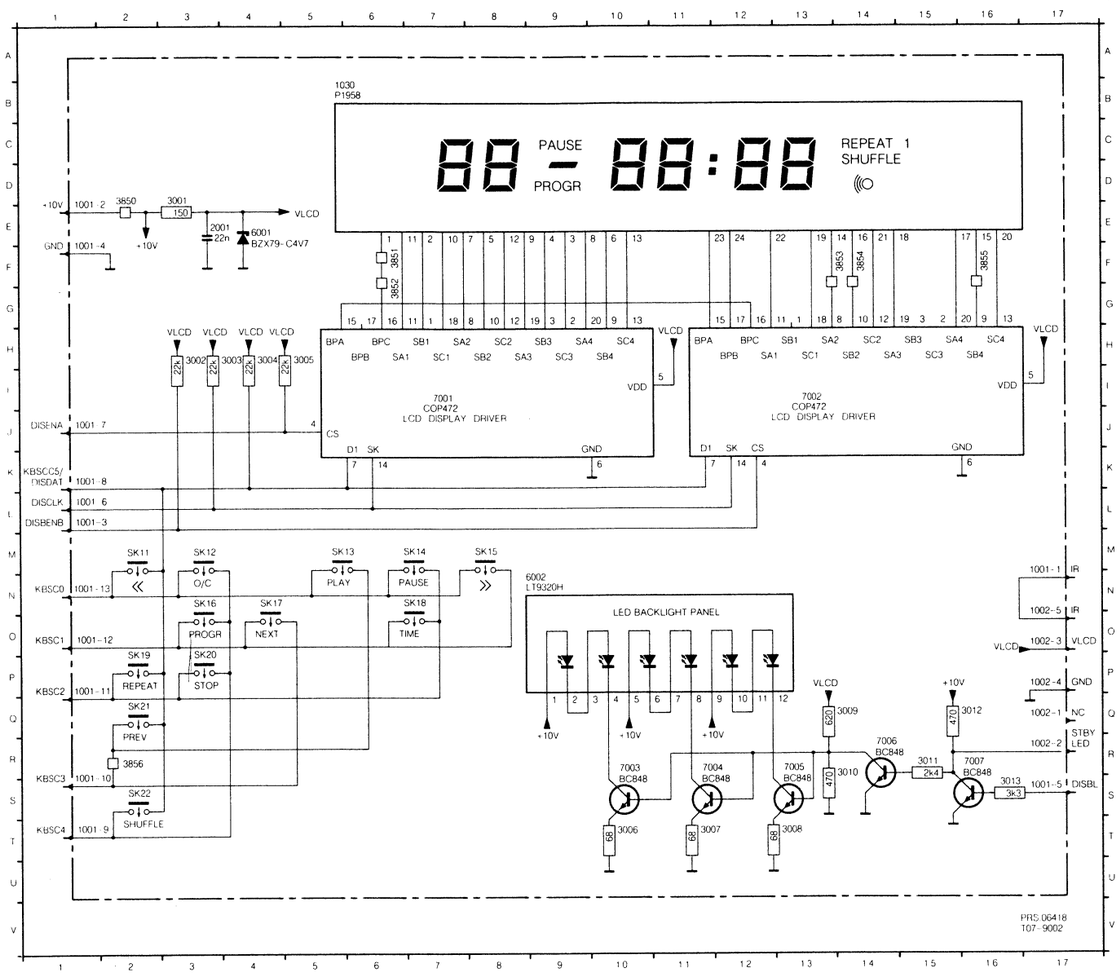


CONTROL AND DISPLAY PANEL SOLDER SIDE

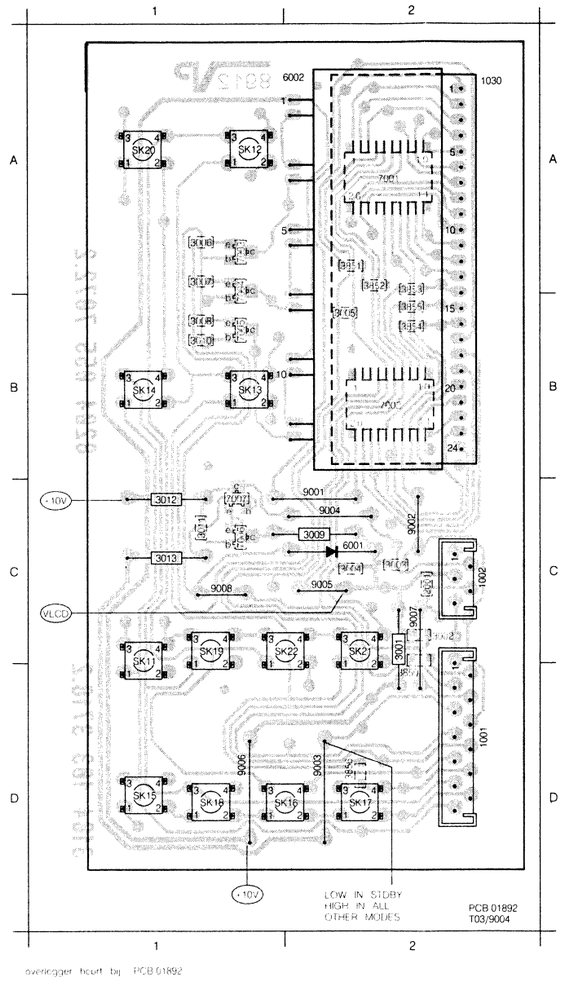


CONTROL AND DISPLAY

2001 E3 3001 D3 3002 H3 | 3003 H4 3004 H4 3005 H5 | 3006 T10 3007 T11 3008 T13 | 3009 Q14 3010 S14 3011 R15 | 3012 Q16 3013 S16 3850 D2 | 3851 F6 3852 G6 3853 F14 | 3854 F14 3855 F16 3856 R2 | 6001 E4 7003 R10 7004 R11 | 7005 R13 7006 R14 7007 R16



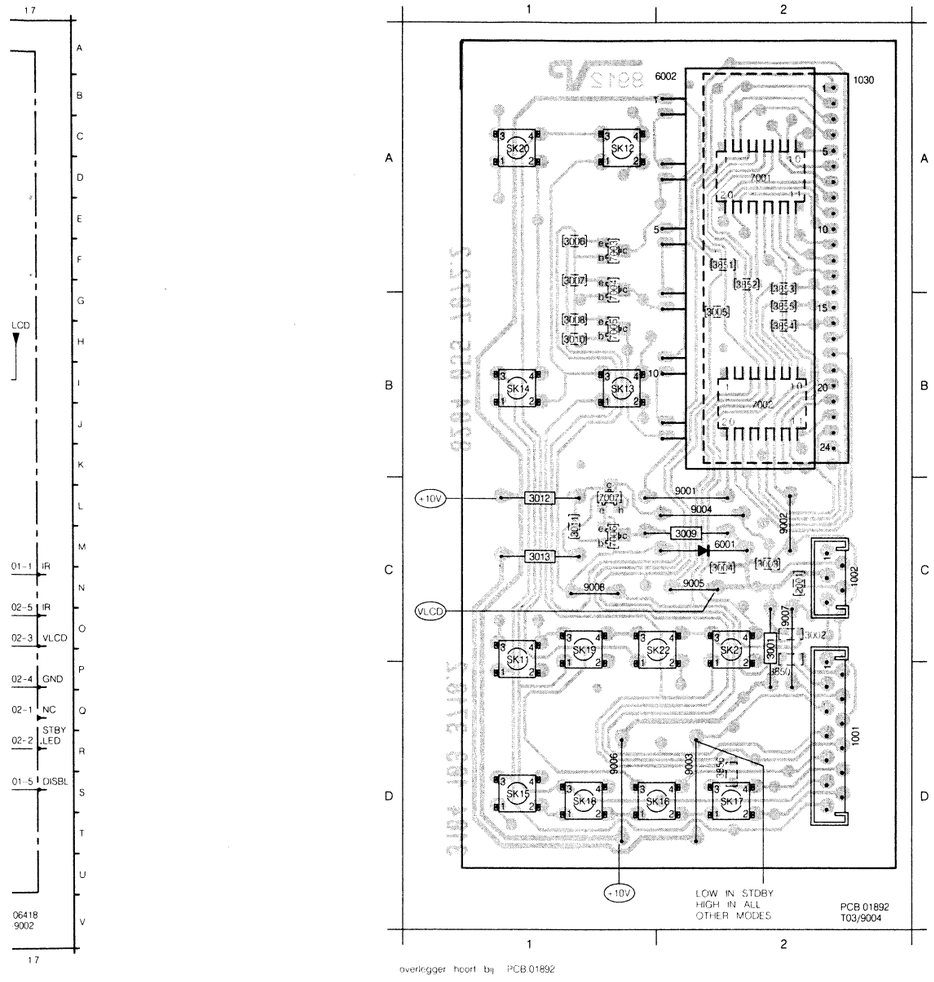
CONTROL AND DISPLAY PANEL COMPONENT SIDE



SK11 D1
SK12 A1
SK13 B1
SK14 B1
SK15 D1
SK16 D1
SK17 D2
SK18 D1
SK19 C1
SK20 A1
SK21 C2
SK22 C1
1001 D2
1002 C2
1030 A2
2001 C2
3001 C2
3002 C2
3003 C2
3004 C2
3005 B2
3006 A1
3007 A1
3008 B1
3009 C2
3010 B1
3011 C1
3012 C1
3013 C1
3850 D2
3851 A2
3852 A2
3853 B2
3854 B2
3855 B2
3856 D2
6001 C2
6002 A1
7001 A2
7002 B2
7003 A1
7004 B1
7005 B1
7006 C1
7007 C1
9001 C2
9002 C2
9003 D2
9004 C2
9005 C2
9006 D1
9007 C2
9008 C1

overlegger hoort bij PCB 01892

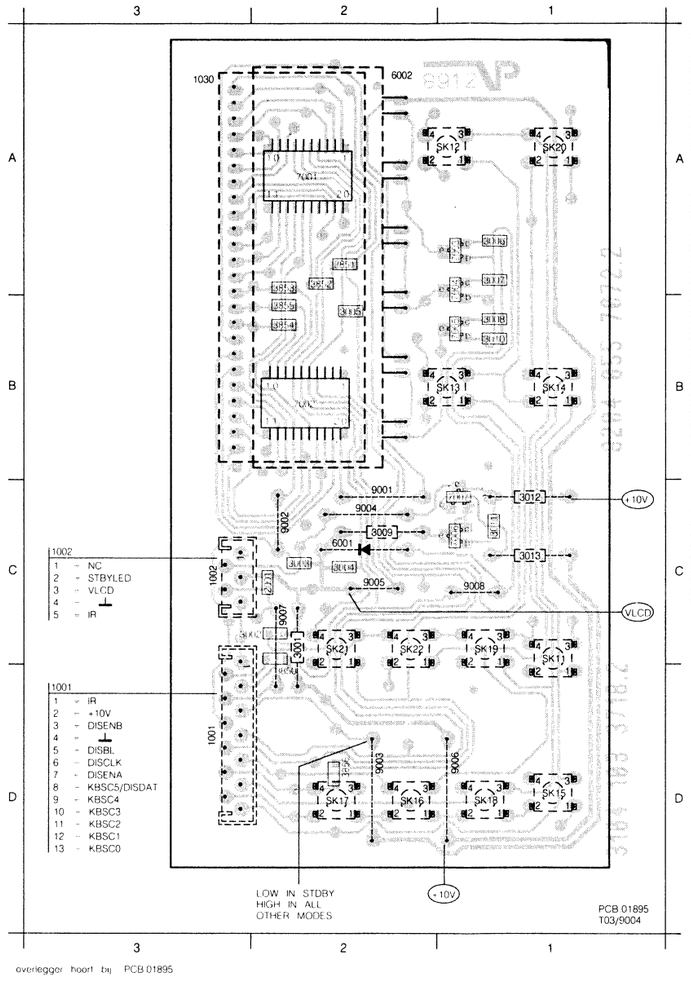
CONTROL AND DISPLAY PANEL COMPONENT SIDE



SK11 D1
SK12 A1
SK13 B1
SK14 B1
SK15 D1
SK16 D1
SK17 D2
SK18 D1
SK19 C1
SK20 A1
SK21 C2
SK22 C1
1001 D2
1002 C2
1030 A2
2001 C2
3001 C2
3002 C2
3003 C2
3004 C2
3005 B2
3006 A1
3007 A1
3008 B1
3009 C2
3010 B1
3011 C1
3012 C1
3013 C1
3850 D2
3851 A2
3852 A2
3853 B2
3854 B2
3855 B2
3856 D2
6001 C2
6002 A1
7001 A2
7002 B2
7003 A1
7004 B1
7005 B1
7006 C1
7007 C1
9001 C2
9002 C2
9003 D2
9004 C2
9005 C2
9006 D1
9007 C2
9008 C1

overlegger hoort bij PCB 01892

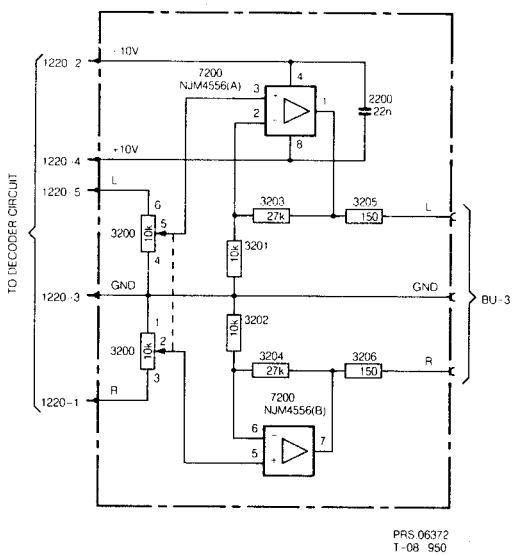
CONTROL AND DISPLAY PANEL SOLDER SIDE



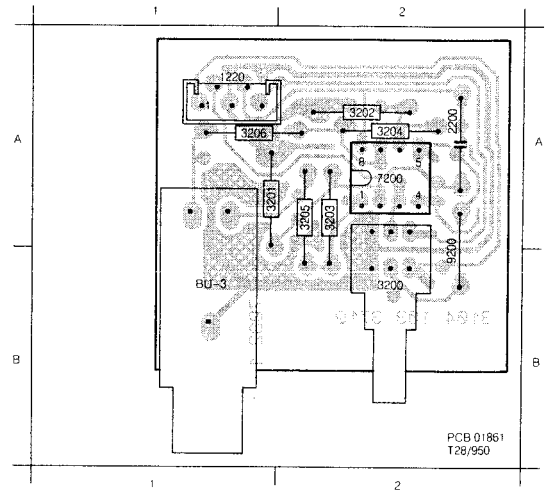
SK11 C1
SK12 A1
SK13 B1
SK14 B1
SK15 D1
SK16 D2
SK17 D2
SK18 D1
SK19 C1
SK20 A1
SK21 C2
SK22 C2
1001 D3
1002 C3
1030 A3
2001 C2
3001 C2
3002 C2
3003 C2
3004 C2
3005 B2
3006 A1
3007 A1
3008 B1
3009 C2
3010 B1
3011 C1
3012 C1
3013 C1
3850 D2
3851 A2
3852 A2
3853 A2
3854 B2
3855 B2
3856 D2
6001 C2
6002 A2
7001 A2
7002 B2
7003 A1
7004 B1
7005 B1
7006 C1
7007 C1
9001 C2
9002 C2
9003 D2
9004 C2
9005 C2
9006 D1
9007 C2
9008 C1

overlegger hoort bij PCB 01895

VARIABLE HEADPHONE

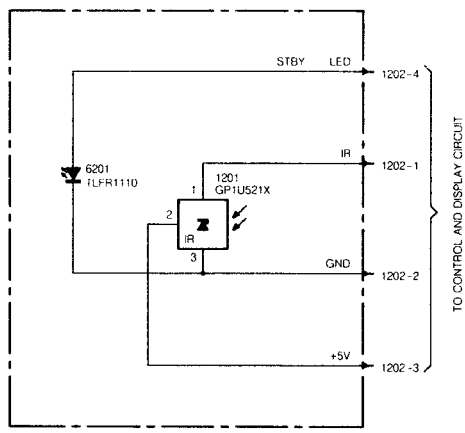


PRS.06372
T-08 950

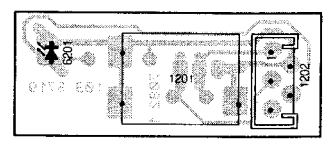


1220 A1
2200 A2
3200 B1
3201 A1
3202 A2
3203 A2
3204 A2
3205 A2
3206 A1
7200 A2
9200 B2
BU-3 B1

I.R. REMOTE CONTROL



PRS.06373
T02/949



PCB 01862
T28/950

DECODER PANEL

Miscellaneous

BU1	4822 265 20291	MAINS INLET
BU2	4822 267 31171	
	4822 256 30274	FUSE HOLDER

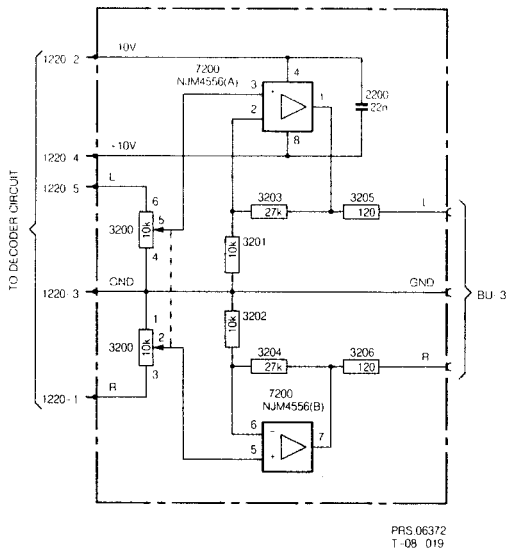
Crystal

1571	4822 242 73557	4,00 MHz
1601	4822 242 72527	4,00 MHz CERAMIC RESONATOR

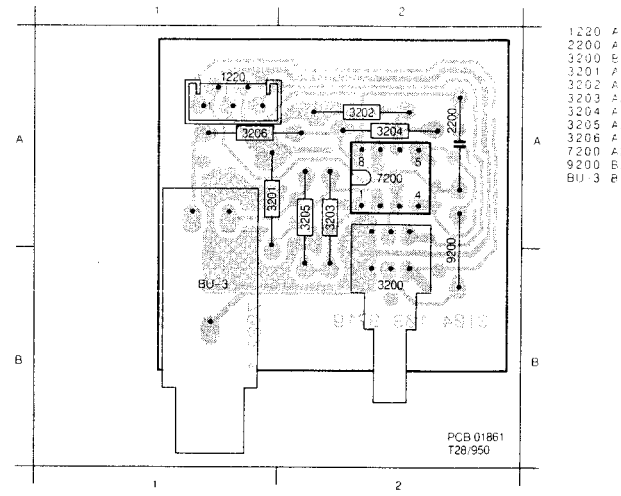
2530	4822 121 43375	220nF 63V
2531	4822 121 51321	8,2µF 1% 63V
2532	4822 121 51321	8,2µF 1% 63V
2533	4822 124 40272	33µF 20% 16V
2534	5322 121 42604	47nF 5% 63V
2535	5322 121 42661	330nF 5% 63V
2536	4822 121 43375	220nF 10% 63V
2537	4822 122 33342	33nF 10% 63V
2538	4822 122 33342	33nF 10% 63V
2560	5322 122 31866	6,8nF 10% 63V
2561	5322 122 31866	6,8nF 10% 63V
2562	4822 122 33496	100nF 10% 63V
2570	5322 122 32452	47pF 5% 50V
2571	4822 122 33175	2,2nF 20% 50V
2572	4822 122 33809	22nF 20% 50V
2574	4822 124 40272	33µF 20% 16V
2575	5322 121 42661	330nF 5% 63V
2576	4822 122 33219	470pF 5% 50V
2577	4822 121 43396	120nF 10% 63V
2582	4822 122 33809	22nF 20% 50V
2584	4822 122 10166	22nF 30% 16V
2586	4822 124 40242	1µF 20% 63V
2601	4822 122 33809	22nF 20% 50V
2602	4822 124 40435	10µF 20% 50V
2610	4822 122 33809	22nF 20% 50V
2611	4822 122 33809	22nF 20% 50V
2612	4822 122 33496	100nF 10% 63V
2640	4822 124 40196	220µF 20% 16V
2642	4822 122 33485	56nF 10% 50V
2650	4822 121 42888	27nF 5% 50V
2651	4822 121 42888	27nF 5% 50V
2652	4822 121 51311	1,8nF 5% 50V
2653	4822 121 51311	1,8nF 5% 50V
2660	4822 121 43651	1,5nF 5% 50V
2661	4822 121 43651	1,5nF 5% 50V
2662	4822 121 51313	3,9µF 5% 50V
2663	4822 121 51313	3,9µF 5% 50V
2664	4822 121 51324	1nF 5% 50V
2665	4822 121 51324	1nF 5% 50V
2668	4822 122 33809	22nF 20% 50V
2669	4822 122 33809	22nF 20% 50V
2670	4822 124 41579	10µF 20% 50V
2671	4822 124 41579	10µF 20% 50V
2680	4822 124 40272	33µF 20% 16V
2681	4822 124 40272	33µF 20% 16V
2682	4822 124 40196	220µF 20% 16V
2760	4822 122 33809	22nF 20% 50V
2761	4822 122 33809	22nF 20% 50V
2762	4822 124 23268	3300µF 20% 16V
2763	4822 124 40272	33µF 20% 16V
2770	4822 122 33809	22nF 20% 50V
2771	4822 122 33809	22nF 20% 50V
2772	4822 124 41853	1000µF 16V
2773	4822 124 40272	33µF 20% 16V

3530	4822 116 52857	47k 1% 0,6W
3531	4822 116 53083	15k 1% 0,6W
3532	4822 111 30499	4Ω7 5% 0,33W
3533	4822 050 11802	1k8 1% 0,4W
3534	4822 050 25102	5k1 1% 0,6W
3535	4822 050 11803	18k 1% 0,4W
3536	4822 050 22204	220k 1% 0,6W
3537	4822 050 22204	220k 1% 0,6W
3538	4822 111 30499	4Ω7 5% 0,33W
3539	4822 050 11203	12k 1% 0,4W
3540	4822 051 10223	22k 2% 0,25W
3560	4822 116 52234	100k 5% 0,5W
3561	4822 116 52234	100k 5% 0,5W
3562	4822 111 91518	100k 5% 0,1W
3563	4822 116 52234	100k 5% 0,5W
3564	4822 111 30517	22Ω 5% 0,33W
3570	4822 111 91522	2k2 5% 0,1W
3571	4822 111 30499	4Ω7 5% 0,33W
3572	4822 111 91523	22k 5% 0,1W
3573	4822 050 21002	1k 5% 0,125W
3574	4822 050 11204	120k 2% 0,6W
3575	4822 116 52921	4k7 1% 0,6W
3580	4822 051 10102	1k 2% 0,25W
3581	4822 051 20475	4M7 5% 0,1W
3583	4822 050 21502	1k5 1% 0,6W
3585	4822 111 30499	4Ω7 5% 0,33W
3586	4822 111 30499	4Ω7 5% 0,33W
3587	4822 116 80881	220k 5% 0,1W
3590	4822 111 91523	22k 5% 0,1W
3591	4822 111 91523	22k 5% 0,1W
3592	5322 111 91484	10k 2% 0,2W NETWORK
3596	4822 051 10223	22k 2% 0,25W
3597	4822 050 21002	1k 5% 0,125W
3598	4822 050 21002	1k 5% 0,125W
3599	4822 051 10102	1k 2% 0,25W
3601	4822 111 30499	4Ω7 5% 0,33W
3602	4822 116 52857	47k 5% 0,125W
3603	4822 116 80881	220k 5% 0,1W
3604	4822 116 52224	470Ω 5% 0,125W
3610	4822 050 21203	12k 1% 0,6W
3611	4822 116 52921	4k7 1% 0,6W
3612	4822 050 21203	12k 1% 0,6W
3613	4822 050 21203	12k 1% 0,6W
3614	4822 050 21203	12k 1% 0,6W
3615	4822 111 30483	1Ω 5% 0,33W
3616	4822 111 30483	1Ω 5% 0,33W
3617	4822 111 30517	22Ω 5% 0,33W
3620	4822 116 52244	15k 5% 0,5W
3621	4822 050 21002	1k 5% 0,125W
3622	4822 111 90249	10k 2% 0,25W
3623	4822 050 21002	1k 5% 0,125W
3640	4822 111 30499	4Ω7 5% 0,33W
3641	4822 051 20242	2k4 5% 0,1W
3650	4822 051 10223	22k 2% 0,25W
3651	4822 111 91532	4k7 5% 0,06W
3652	4822 111 91523	22k 5% 0,1W
3653	4822 111 90249	10k 2% 0,25W
3654	4822 051 10102	1k 2% 0,25W
3655	4822 051 10102	1k 2% 0,25W
3656	4822 051 10561	560Ω 2% 0,25W
3657	4822 051 10561	560Ω 2% 0,25W
3658	4822 051 20475	4M7 5% 0,1W
3659	4822 051 20475	4M7 5% 0,1W
3660	4822 051 20272	2k7 2% 0,1W
3661	4822 051 20272	2k7 2% 0,1W

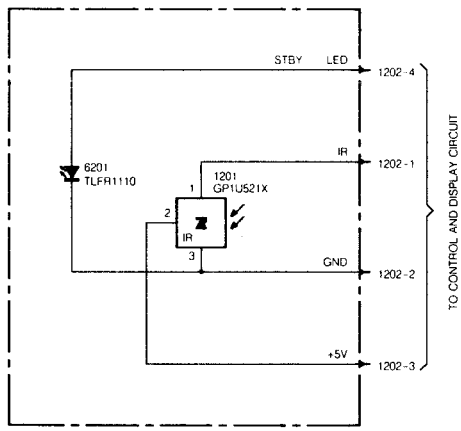
VARIABLE HEADPHONE



PRS.06372
T-08-019



I.R. REMOTE CONTROL



PRS.06373
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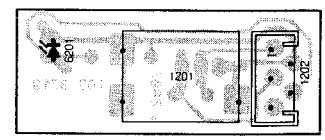


PCB 01862
T28/950

ELECTRICAL PARTSLIST

DECODER PANEL

Miscellaneous

BU1	4822 265 20291	MAINS INLET
BU2	4822 267 31171	
	4822 256 30274	FUSE HOLDER

Crystal

1571	4822 242 73557	4,00 MHz
1601	4822 242 72527	4,00 MHz CERAMIC RESONATOR

2530	4822 121 43375	220nF 63V
2531	4822 121 51321	8,2µF 1% 63V
2532	4822 121 51321	8,2µF 1% 63V
2533	4822 124 40272	33µF 20% 16V
2534	5322 121 42604	47nF 5% 63V
2535	5322 121 42661	330nF 5% 63V
2536	4822 121 43375	220nF 10% 63V
2537	4822 122 33342	33nF 10% 63V
2538	4822 122 33342	33nF 10% 63V
2560	5322 122 31866	6,8nF 10% 63V
2561	5322 122 31866	6,8nF 10% 63V
2562	4822 122 33496	100nF 10% 63V
2570	5322 122 32452	47pF 5% 50V
2571	4822 122 33175	2,2nF 20% 50V
2572	4822 122 33809	22nF 20% 50V
2574	4822 124 40272	33µF 20% 16V
2575	5322 121 42661	330nF 5% 63V
2576	4822 122 33219	470pF 5% 50V
2577	4822 121 43396	120nF 10% 63V
2582	4822 122 33809	22nF 20% 50V
2584	4822 122 10166	22nF 30% 16V
2586	4822 124 40242	1µF 20% 63V
2601	4822 122 33809	22nF 20% 50V
2602	4822 124 40435	10µF 20% 50V
2610	4822 122 33809	22nF 20% 50V
2611	4822 122 33809	22nF 20% 50V
2612	4822 122 33496	100nF 10% 63V
2640	4822 124 40196	220µF 20% 16V
2642	4822 122 33485	56nF 10% 50V
2650	4822 121 42888	27nF 5% 50V
2651	4822 121 42888	27nF 5% 50V
2652	4822 121 51311	1,8nF 5% 50V
2653	4822 121 51311	1,8nF 5% 50V
2660	4822 121 43651	1,5nF 5% 50V
2661	4822 121 43651	1,5nF 5% 50V
2662	4822 121 51313	3,9µF 5% 50V
2663	4822 121 51313	3,9µF 5% 50V
2664	4822 121 51324	1nF 5% 50V
2665	4822 121 51324	1nF 5% 50V
2668	4822 122 33809	22nF 20% 50V
2669	4822 122 33809	22nF 20% 50V
2670	4822 124 41579	10µF 20% 50V
2671	4822 124 41579	10µF 20% 50V
2680	4822 124 40272	33µF 20% 16V
2681	4822 124 40272	33µF 20% 16V
2682	4822 124 40196	220µF 20% 16V
2760	4822 122 33809	22nF 20% 50V
2761	4822 122 33809	22nF 20% 50V
2762	4822 124 23268	3300µF 20% 16V
2763	4822 124 40272	33µF 20% 16V
2770	4822 122 33809	22nF 20% 50V
2771	4822 122 33809	22nF 20% 50V
2772	4822 124 41853	1000µF 16V
2773	4822 124 40272	33µF 20% 16V

3530	4822 116 52857	47k 1% 0,6W
3531	4822 116 53083	15k 1% 0,6W
3532	4822 111 30499	4Ω7 5% 0,33W
3533	4822 050 11802	1k8 1% 0,4W
3534	4822 050 25102	5k1 1% 0,6W
3535	4822 050 11803	18k 1% 0,4W
3536	4822 050 22204	220k 1% 0,6W
3537	4822 050 22204	220k 1% 0,6W
3538	4822 111 30499	4Ω7 5% 0,33W
3539	4822 050 11203	12k 1% 0,4W
3540	4822 051 10223	22k 2% 0,25W
3560	4822 116 52234	100k 5% 0,5W
3561	4822 116 52234	100k 5% 0,5W
3562	4822 111 91518	100k 5% 0,1W
3563	4822 116 52234	100k 5% 0,5W
3564	4822 111 30517	22Ω 5% 0,33W
3570	4822 111 91522	2k2 5% 0,1W
3571	4822 111 30499	4Ω7 5% 0,33W
3572	4822 111 91523	22k 5% 0,1W
3573	4822 050 21002	1k 5% 0,125W
3574	4822 050 11204	120k 2% 0,6W
3575	4822 116 52921	4k7 1% 0,6W
3580	4822 051 10102	1k 2% 0,25W
3581	4822 051 20475	4M7 5% 0,1W
3583	4822 050 21502	1k5 1% 0,6W
3585	4822 111 30499	4Ω7 5% 0,33W
3586	4822 111 30499	4Ω7 5% 0,33W
3587	4822 116 80881	220k 5% 0,1W
3590	4822 111 91523	22k 5% 0,1W
3591	4822 111 91523	22k 5% 0,1W
3592	5322 111 91484	10k 2% 0,2W NETWORK
3596	4822 051 10223	22k 2% 0,25W
3597	4822 050 21002	1k 5% 0,125W
3598	4822 050 21002	1k 5% 0,125W
3599	4822 051 10102	1k 2% 0,25W
3601	4822 111 30499	4Ω7 5% 0,33W
3602	4822 116 52857	47k 5% 0,125W
3603	4822 116 80881	220k 5% 0,1W
3604	4822 116 52224	470Ω 5% 0,125W
3610	4822 050 21203	12k 1% 0,6W
3611	4822 116 52921	4k7 1% 0,6W
3612	4822 050 21203	12k 1% 0,6W
3613	4822 050 21203	12k 1% 0,6W
3614	4822 050 21203	12k 1% 0,6W
3615	4822 111 30483	1Ω 5% 0,33W
3616	4822 111 30483	1Ω 5% 0,33W
3617	4822 111 30517	22Ω 5% 0,33W
3620	4822 116 52244	15k 5% 0,5W
3621	4822 050 21002	1k 5% 0,125W
3622	4822 111 90249	10k 2% 0,25W
3623	4822 050 21002	1k 5% 0,125W
3640	4822 111 30499	4Ω7 5% 0,33W
3641	4822 051 20242	2k4 5% 0,1W
3650	4822 051 10223	22k 2% 0,25W
3651	4822 111 91532	4k7 5% 0,06W
3652	4822 111 91523	22k 5% 0,1W
3653	4822 111 90249	10k 2% 0,25W
3654	4822 051 10102	1k 2% 0,25W
3655	4822 051 10102	1k 2% 0,25W
3656	4822 051 10561	560Ω 2% 0,25W
3657	4822 051 10561	560Ω 2% 0,25W
3658	4822 051 20475	4M7 5% 0,1W
3659	4822 051 20475	4M7 5% 0,1W
3660	4822 051 20272	2k7 2% 0,1W
3661	4822 051 20272	2k7 2% 0,1W

3662	4822 051 10122	1k2 2% 0,25W
3663	4822 051 10122	1k2 2% 0,25W
3664	4822 051 10122	1k2 2% 0,25W
3665	4822 051 10122	1k2 2% 0,25W
3666	4822 051 20242	2k4 5% 0,1W
3667	4822 051 20242	2k4 5% 0,1W
3668	4822 051 10122	1k2 2% 0,25W
3669	4822 051 10122	1k2 2% 0,25W
3670	4822 111 30508	10Ω 5% 0,33W
3671	4822 111 30508	10Ω 5% 0,33W
3672	4822 111 91523	22k 5% 0,1W
3673	4822 111 91523	22k 5% 0,1W
3676	4822 051 10102	1k 2% 0,25W
3677	4822 051 10102	1k 2% 0,25W
3680	4822 051 10681	680Ω 2% 0,25W
3681	4822 111 91523	22k 5% 0,1W
3682	4822 051 10102	1k 2% 0,25W
3683	4822 051 10102	1k 2% 0,25W
3684	4822 050 25603	56k 1% 0,6W
3688	4822 111 91522	2k2 5% 0,1W
3689	4822 116 53025	2k2 1% 0,6W
3700	4822 116 52857	47k 5% 0,125W
3701	4822 116 53084	18k 5% 0,125W
3702	4822 116 53084	18k 5% 0,125W
3710	4822 111 90249	10k 5% 0,125W
3711	4822 111 91517	10k 5% 0,1W
3720	4822 051 10151	150Ω 2% 0,25W
3721	4822 051 10151	150Ω 2% 0,25W
3800	4822 111 90163	jumper
3802	4822 111 90163	jumper
3803	4822 111 90163	jumper
3807	4822 111 90163	jumper
3808	4822 111 90163	jumper
3810	4822 111 90163	jumper
3811	4822 111 90163	jumper
3814	4822 111 90163	jumper
3815	4822 111 90163	jumper
3818	4822 111 90163	jumper

5660	4822 157 60363	ANTI INTERFERENCE COIL

6570	4822 130 30621	1N4148
6600	5322 130 30684	1N4002
6610	5322 130 30684	1N4002
6611	5322 130 30684	1N4002
6620	4822 130 30621	1N4148
6621	4822 130 34174	BZX55-C4V7
6680	5322 130 30684	1N4002
6681	5322 130 30684	1N4002
6682	5322 130 30684	1N4002
6683	5322 130 30684	1N4002
6684	4822 130 30861	BZX55-C7V5
6760	5322 130 30684	1N4002
6761	5322 130 30684	1N4002
6770	5322 130 30684	1N4002
6771	5322 130 30684	1N4002
7530	4822 209 73235	TDA8809T/C2
7560	4822 209 72587	TCA0372DP2
7570	4822 209 62112	M50423FP
7575	4822 209 70422	MN4264-15
7590	4822 209 62208	MC68HC05C8P/9411
7620	4822 209 80797	LM393N
7640	4822 209 73236	TDA1543/N2
7650	4822 130 61207	BC848
7651	5322 130 42012	BC858
7652	4822 130 61207	BC848
7653	4822 130 61207	BC848
7660	4822 209 83163	LM833N
7661	4822 209 83163	LM833N
7680	5322 130 42012	BC858
7684	4822 130 61207	BC848
7685	4822 130 61207	BC848
7700	4822 130 61207	BC848
7710	5322 130 42012	BC858
7720	4822 209 83274	NJM4560D
7760	4822 209 71579	TY40408
7770	4822 209 73233	MC79L05ACP

PHOTO DIODE SIGNAL CONTROLLER PANEL

Miscellaneous

SK3	4822 276 12523	

2500	4822 122 33809	22nF 20% 50V
2501	4822 122 33809	22nF 20% 50V
2502	5322 122 32268	470pF 10% 50V
2503	4822 122 33809	22nF 20% 50V
2504	4822 122 33175	2,2nF 20% 50V
2505	5322 121 42604	47nF 5% 63V
2506	5322 122 32531	100pF 5% 50V
2507	4822 122 33177	10nF 20% 50V
2508	5322 122 34123	1nF 10% 50V
2509	4822 121 43375	220nF 10% 63V
2510	4822 121 51252	470nF 5% 63V
2511	5322 122 34123	1nF 10% 50V
2514	4822 121 51252	470nF 5% 63V
2515	4822 122 33339	4,7nF 10% 50V
2516	5322 121 42661	330nF 5% 63V
2517	4822 122 33496	100nF 10% 63V
2540	4822 122 33809	22nF 20% 50V
2541	4822 122 33809	22nF 20% 50V
2542	4822 124 41583	0,68µF 20% 50V Bipolar
2543	4822 122 33496	100nF 10% 63V
2550	4822 122 32575	220pF 10% 500V
2551	4822 124 40272	33µF 20% 16V
2552	4822 122 32927	220nF 20% 63V

3500	4822 116 52921	4k7 1% 0,6W
3501	4822 111 91518	100k 5% 0,1W
3502	4822 051 20123	12k 5% 0,1W
3503	4822 116 90441	100Ω 5% 0,1W
3504	4822 051 10102	1k 2% 0,25W
3505	4822 051 20243	24k 5% 0,1W
3506	4822 111 91534	5k6 5% 0,06W
3507	4822 111 91517	10k 5% 0,1W
3510	4822 051 20113	11k 5% 0,1W
3511	4822 050 11204	120k 1% 0,4W
3512	4822 051 20154	150k 5% 0,1W
3513	4822 116 52866	82k 1% 0,6W
3514	4822 051 20164	160k 5% 0,1W
3515	4822 100 11193	22k 20%LIN 0,05W Trimpot
3516	4822 050 24704	470k 1% 0,6W
3517	4822 051 20563	56k 5% 0,1W
3518	4822 111 30519	27Ω 5% 0,33W
3519	4822 111 30517	22Ω 5% 0,33W
3541	4822 050 16802	6k8 1% 0,4W
3542	4822 116 52441	6k8 5% 0,5W
3543	4822 111 30483	1Ω 5% 0,33W
3544	4822 111 30483	1Ω 5% 0,33W
3545	4822 116 90471	33Ω 5% 0,1W
3546	4822 111 30499	4Ω7 5% 0,33W
3550	4822 111 30515	18Ω 5% 0,33W
3551	4822 111 30511	12Ω 5% 0,33W
3552	4822 116 90441	100Ω 5% 0,1W
3553	4822 116 53025	2k2 1% 0,6W
3554	4822 111 90178	220Ω 2% 0,25W
3555	4822 101 10685	4k7 20%LIN 0,05W Trimpot
3806	4822 111 90163	jumper
3816	4822 111 90163	jumper
3817	4822 111 90163	jumper
3820	4822 111 90163	jumper

6540	4822 130 34173	BZX55-F5V6
6541	4822 130 34173	BZX55-F5V6
6550	4822 130 30621	1N4148
7500	4822 209 73234	TDA8808T/C3
7510	4822 209 72587	TCA0372DP2
7550	4822 130 44121	BC338

3662	4822 051 10122	1k2 2% 0,25W
3663	4822 051 10122	1k2 2% 0,25W
3664	4822 051 10122	1k2 2% 0,25W
3665	4822 051 10122	1k2 2% 0,25W
3666	4822 051 20242	2k4 5% 0,1W
3667	4822 051 20242	2k4 5% 0,1W
3668	4822 051 10122	1k2 2% 0,25W
3669	4822 051 10122	1k2 2% 0,25W
3670	4822 111 30508	10Ω 5% 0,33W
3671	4822 111 30508	10Ω 5% 0,33W
3672	4822 111 91523	22k 5% 0,1W
3673	4822 111 91523	22k 5% 0,1W
3676	4822 051 10102	1k 2% 0,25W
3677	4822 051 10102	1k 2% 0,25W
3680	4822 051 10102	1k 5% 0,1W
3681	4822 111 91523	22k 5% 0,1W
3682	4822 051 10102	1k 2% 0,25W
3683	4822 051 10102	1k 2% 0,25W
3684	4822 050 25603	56k 1% 0,6W
3688	4822 111 91522	2k2 5% 0,1W
3689	4822 116 53025	2k2 1% 0,6W
3700	4822 116 52857	47k 5% 0,125W
3701	4822 116 53084	18k 5% 0,125W
3702	4822 116 53084	18k 5% 0,125W
3710	4822 111 90249	10k 5% 0,125W
3711	4822 111 91517	10k 5% 0,1W
3720	4822 051 10151	150Ω 2% 0,25W
3721	4822 051 10151	150Ω 2% 0,25W
3800	4822 111 90163	jumper
3802	4822 111 90163	jumper
3803	4822 111 90163	jumper
3807	4822 111 90163	jumper
3808	4822 111 90163	jumper
3810	4822 111 90163	jumper
3811	4822 111 90163	jumper
3814	4822 111 90163	jumper
3815	4822 111 90163	jumper
3818	4822 111 90163	jumper

5660	4822 157 60363	ANTI INTERFERENCE COIL

6570	4822 130 30621	1N4148
6600	5322 130 30684	1N4002
6610	5322 130 30684	1N4002
6611	5322 130 30684	1N4002
6620	4822 130 30621	1N4148
6621	4822 130 34174	BZX55-C4V7
6680	5322 130 30684	1N4002
6681	5322 130 30684	1N4002
6682	5322 130 30684	1N4002
6683	5322 130 30684	1N4002
6684	4822 130 30861	BZX55-C7V5
6760	5322 130 30684	1N4002
6761	5322 130 30684	1N4002
6770	5322 130 30684	1N4002
6771	5322 130 30684	1N4002
7530	4822 209 73235	TDA8809T/C2
7560	4822 209 72587	TCA0372DP2
7570	4822 209 62112	M50423FP
7575	4822 209 70422	MN4264-15
7590	4822 209 62208	MC68HC05C8P/9411
7620	4822 209 80797	LM393N
7640	4822 209 73236	TDA1543/N2
7650	4822 130 61207	BC848
7651	5322 130 42012	BC858
7652	4822 130 61207	BC848
7653	4822 130 61207	BC848
7660	4822 209 83163	LM833N
7661	4822 209 83163	LM833N
7680	5322 130 42012	BC858
7684	4822 130 61207	BC848
7685	4822 130 61207	BC848
7700	4822 130 61207	BC848
7710	5322 130 42012	BC858
7720	4822 209 83274	NJM4560D
7760	4822 209 71579	TY40408
7770	4822 209 73233	MC79L05ACP

6-3b

PHOTO DIODE SIGNAL CONTROLLER PANEL

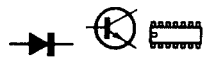
Miscellaneous

SK3	4822 276 12523	

2500	4822 122 33809	22nF 20% 50V
2501	4822 122 33809	22nF 20% 50V
2502	5322 122 32268	470pF 10% 50V
2503	4822 122 33809	22nF 20% 50V
2504	4822 122 33175	2,2nF 20% 50V
2505	5322 121 42604	47nF 5% 63V
2506	5322 122 32531	100pF 5% 50V
2507	4822 122 33177	10nF 20% 50V
2508	5322 122 34123	1nF 10% 50V
2509	4822 121 43375	220nF 10% 63V
2510	4822 121 51252	470nF 5% 63V
2511	5322 122 34123	1nF 10% 50V
2514	4822 121 51252	470nF 5% 63V
2515	4822 122 33339	4,7nF 10% 50V
2516	5322 121 42661	330nF 5% 63V
2517	4822 122 33496	100nF 10% 63V
2540	4822 122 33809	22nF 20% 50V
2541	4822 122 33809	22nF 20% 50V
2542	4822 124 41583	0,68µF 20% 50V Bipolar
2543	4822 122 33496	100nF 10% 63V
2550	4822 122 32575	220pF 10% 500V
2551	4822 124 40272	33µF 20% 16V
2552	4822 122 32927	220nF 20% 63V

3500	4822 116 52921	4k7 1% 0,6W
3501	4822 111 91518	100k 5% 0,1W
3502	4822 051 20123	12k 5% 0,1W
3503	4822 116 90441	100Ω 5% 0,1W
3504	4822 051 10102	1k 2% 0,25W
3505	4822 051 20243	24k 5% 0,1W
3506	4822 111 91534	5k6 5% 0,06W

3507	4822 111 91517	10k 5% 0,1W
3510	4822 051 20113	11k 5% 0,1W
3511	4822 050 11204	120k 1% 0,4W
3512	4822 051 20154	150k 5% 0,1W
3513	4822 116 52866	82k 1% 0,6W
3514	4822 051 20164	160k 5% 0,1W
3515	4822 100 11193	22k 20%LIN 0,05W Trimpot
3516	4822 050 24704	470k 1% 0,6W
3517	4822 051 20563	56k 5% 0,1W
3518	4822 111 30519	27Ω 5% 0,33W
3519	4822 111 30517	22Ω 5% 0,33W
3541	4822 050 16802	6k8 1% 0,4W
3542	4822 116 52441	6k8 5% 0,5W
3543	4822 111 30483	1Ω 5% 0,33W
3544	4822 111 30483	1Ω 5% 0,33W
3545	4822 116 90471	33Ω 5% 0,1W
3546	4822 111 30499	4Ω7 5% 0,33W
3550	4822 111 30515	18Ω 5% 0,33W
3551	4822 111 30511	12Ω 5% 0,33W
3552	4822 116 90441	100Ω 5% 0,1W
3553	4822 116 53025	2k2 1% 0,6W
3554	4822 111 90178	220Ω 2% 0,25W
3555	4822 101 10685	4k7 20%LIN 0,05W Trimpot
3806	4822 111 90163	jumper
3816	4822 111 90163	jumper
3817	4822 111 90163	jumper
3820	4822 111 90163	jumper



6540	4822 130 34173	BZX55-F5V6
6541	4822 130 34173	BZX55-F5V6
6550	4822 130 30621	1N4148
7500	4822 209 73234	TDA8808T/C3
7510	4822 209 72587	TCA0372DP2
7550	4822 130 44121	BC338

CONTROL AND DISPLAY PANEL

Miscellaneous		
SK..	4822 276 12276	
	4822 256 91613	LCD HOLDER
1030	4822 130 90819	LPH-1958-1
2001	4822 122 33809	22nF 20% 50V
3001	4822 050 21501	150Ω 1% 0,6W
3002	4822 111 91523	22k 5% 0,1W
3003	4822 111 91523	22k 5% 0,1W
3004	4822 111 91523	22k 5% 0,1W
3005	4822 111 91523	22k 5% 0,1W
3006	4822 116 80887	68Ω 5% 0,1W
3007	4822 116 80887	68Ω 5% 0,1W
3008	4822 116 80887	68Ω 5% 0,1W
3009	4822 050 26201	620Ω 1% 0,6W
3010	4822 116 90446	470Ω 5% 0,1W
3011	4822 051 20242	2k4 5% 0,1W
3012	4822 116 52224	470Ω 5% 0,5W
3013	4822 050 23302	3k3 1% 0,6W
3850	4822 111 90163	jumper
3851	4822 111 90163	jumper
3852	4822 111 90163	jumper
3853	4822 111 90163	jumper
3854	4822 111 90163	jumper
3855	4822 111 90163	jumper
3856	4822 111 90163	jumper
6001	4822 017 24780	BZX79-C4V7
6002	4822 130 81011	LT9320Hz
7001	4822 209 62209	COP472WM-3
7002	4822 209 62209	COP472WM-3
7003	4822 130 61207	BC848
7004	4822 130 61207	BC848
7005	4822 130 61207	BC848
7006	4822 130 61207	BC848
7007	4822 130 61207	BC848

VARIABLE HEADPHONE PANEL

Miscellaneous		
BU3	4822 267 30743	
3200	4822 102 10398	10k LOG CARBPOT
2200	4822 122 10166	22nF 30% 16V
3201	4822 111 90249	10k 2% 0,25W
3202	4822 111 90249	10k 2% 0,25W
3203	4822 116 52264	27k 5% 0,5W
3204	4822 116 52264	27k 5% 0,5W
3205	4822 050 21201	120Ω 1% 0,6W
3206	4822 050 21201	120Ω 1% 0,6W
7200	4822 209 82362	NJM4556D

I.R. REMOTE CONTROL PANEL

6201	4822 130 33528	TLFR1110
7201	4822 214 51772	GP1U521X

MISCELLANEOUS

1501	4822 070 31001	FUSE 100mAT
5500	4822 146 30891	MAINSTRANSFORMER

CONTROL AND DISPLAY PANEL

Miscellaneous		
SK..	4822 276 12276	
	4822 256 91613	LCD HOLDER
1030	4822 130 90819	LPH-1958-1
2001	4822 122 33809	22nF 20% 50V
3001	4822 050 21501	150Ω 1% 0,6W
3002	4822 111 91523	22k 5% 0,1W
3003	4822 111 91523	22k 5% 0,1W
3004	4822 111 91523	22k 5% 0,1W
3005	4822 111 91523	22k 5% 0,1W
3006	4822 116 80887	68Ω 5% 0,1W
3007	4822 116 80887	68Ω 5% 0,1W
3008	4822 116 80887	68Ω 5% 0,1W
3009	4822 050 26201	620Ω 1% 0,6W
3010	4822 116 90446	470Ω 5% 0,1W
3011	4822 051 20242	2k4 5% 0,1W
3012	4822 116 52224	470Ω 5% 0,5W
3013	4822 050 23302	3k3 1% 0,6W
3850	4822 111 90163	jumper
3851	4822 111 90163	jumper
3852	4822 111 90163	jumper
3853	4822 111 90163	jumper
3854	4822 111 90163	jumper
3855	4822 111 90163	jumper
3856	4822 111 90163	jumper
6001	4822 017 24780	BZX79-C4V7
6002	4822 130 81011	LT9320Hz
7001	4822 209 62209	COP472WM-3
7002	4822 209 62209	COP472WM-3
7003	4822 130 61207	BC848
7004	4822 130 61207	BC848
7005	4822 130 61207	BC848
7006	4822 130 61207	BC848
7007	4822 130 61207	BC848

VARIABLE HEADPHONE PANEL

Miscellaneous		
BU3	4822 267 30522	
3200	4822 102 10398	10k LOG CARBPOT
2200	4822 122 10166	22nF 30% 16V
3201	4822 111 90249	10k 2% 0,25W
3202	4822 111 90249	10k 2% 0,25W
3203	4822 116 52264	27k 5% 0,5W
3204	4822 116 52264	27k 5% 0,5W
3205	4822 050 21201	120Ω 1% 0,6W
3206	4822 050 21201	120Ω 1% 0,6W
7200	4822 209 82362	NJM4556D

I.R. REMOTE CONTROL PANEL

6201	4822 130 33528	TLFR1110
7201	4822 214 51772	GP1U521X

MISCELLANEOUS

1501	4822 070 31001	FUSE 100mAT
5500	4822 146 30891	MAINSTRANSFORMER

Modifications with A90-109

Page	Reason
Frontpage	**CD130 added**
3-1a	Correction
3-5a	Partslist updated
6-1a	Partslist updated
6-2a	Partslist updated
6-3a	Partslist updated
6-4a	Partslist updated
7-1	Modifications added

Modifications with A90-109

Page	Reason
Frontpage	**CD130 added**
3-1a	Correction
3-5a	Partslist updated
6-1a	Partslist updated
6-2a	Partslist updated
6-3a	Partslist updated
6-4a	Partslist updated
7-1	Modifications added

Modifications with A90-115

Page	Reason
Frontpage	**/10B added**
3-5b	Partslist updated
3-6a	Correction
5-2a	Correction
5-3a	Correction
5-4a	Correction
5-5a	Correction
5-6a	Correction
5-7a	Correction
5-8a	Correction
5-9a	Correction
5-10a	Correction
6-2b	Partslist updated
6-4b	Partslist updated
7-1a	Modifications added

PHILIPS

Service Information

Betrifft: Compact Disc-Spieler
CD 110, CD 130, CD 140
Service Hinweis

Verteiler:
intern und extern

Laufgeräusche im Play-Betrieb können hervorgerufen werden durch Fehleinstellung des Platten-Andrückers Pos. 118, verursacht durch eine beschädigte Feder Pos. 116.

Abhilfe ist in solchen Fällen möglich durch Erneuern der Andruckfeder Pos. 116.

116 Feder 4822 492 52159

Form 80048

Service
Service
Service

Philips GmbH · Geschäftsbereich Service · Hamburg 1

Nachdruck nicht gestattet! Änderungen vorbehalten.

PHILIPS

PHILIPS

SI Wichtig für die Werkstatt!

Nummer 52060

Sachgebiet Compact Disc AC 52 Datum 12.02.91 De/L1

Service Information

Betrifft: Compact Disc-Spieler
CD 110, CD 130, CD 140

Verteiler: intern und extern

Bei Geräten mit Wochencode ab 9012 ist das Flachkabel zwischen dem Photodiode Signal Controller Panel und dem Decoder Panel durch eine "Flex Foil"-Verbindung ersetzt worden.

Flex Foil Bestell-Nummer: 4822 321 61026

4812 829 52060

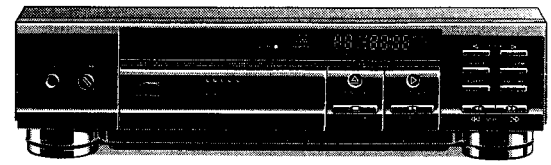
Form 80048

Philips GmbH · Geschäftsbereich Service · Hamburg 1

Nachdruck nicht gestattet! Änderungen vorbehalten.

Compact disc player CD110/00B/05B
CD140/00B/05R

Service
Service
Service



45 192 A11

Service Manual

COMPACT disc DIGITAL AUDIO

CONTENTS

1 Technical specification
2 Controls and connections
3 Servicing hints and tools,
Disassembly of the cabinet and loading
Exploded view
4 Faultfinding tree
Specification measurements
5 Block diagram
Power supply
Photo diode controller panel
Servo control and decoder panel
Control and display panel
Variable headphone panel
I.R. remote control panel
6 Parts list

CLASS 1 LASER PRODUCT

3122 110 03420

(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(SF)
Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

(S)
Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

PHILIPS

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agrées, seuls habilités à réparer votre appareil en panne".

Subject to modification
4822 725 22624
Printed in The Netherlands

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PHILIPS
Published by Consumer Electronics
CS 27 295

TECHNICAL SPECIFICATIONS

General

1. Mains voltage	: 220, 240 Volt (+/– 10%)
2. Mains frequency	: 50-60 Hz
3. Mains voltage selection	: By soldering (220/240 Volt-version) By changing transformer (110/127 Volt-version)
4. Power consumption mains, operated	: 9 W
Standby	: 3 W

Line output

1. Number of channels	: 2
2. Output voltage	: 2 Vrms +/– 2 dB
3. Unbalance Left-Right	: max. 0,5 dB
4. Output resistance	: 1 kOhm
5. Amplitude linearity	: max. +/– 0,15 dB from 20 Hz to 18 kHz
6. Phase non-linearity	: max. +/– 1° from 20 Hz to 18 kHz
7. Signal to noise ratio	: min 90 dB from 20 Hz to 18 kHz
8. Dynamic range	: min 80 dB from 20 Hz to 18 kHz
9. Total harmonic distortion + noise	: min -66 dB from 20 Hz to 18 kHz
10. Intermodulation distortion	: min -66 dB from 20 Hz to 18 kHz
11. Out-band attenuation	: min 50 dB
12. Channel separation	: min 80 dB from 20 Hz to 18 kHz
13. Muting during random access	: min 90 dB from 20 Hz to 18 kHz
14. Automatic switched de-emphasis with time constants	15/50 us

Headphone

1. Output voltage	: max. 2 Vrms +/– 2 dB
2. Unbalance Left-right	: max. +/– 0,2 dB
3. Output resistance	: 150 Ohm
4. Load impedance range	: 32 Ohm to 600 Ohm
5. Output power	: max. 6 mW into 32 Ohm load max. 10 mW into 150 Ohm load max. 6 mW into 600 Ohm load
6. Signal to noise ratio	: min 90 dB from 20 Hz to 18 kHz
7. Dynamic range	: min 80 dB from 20 Hz to 18 kHz
8. Total harmonic distortion + noise	: min 66 dB from 20 Hz to 18 kHz
9. Intermodulation distortion	: min 66 dB from 20 Hz to 18 kHz
10. Channel separation	: min 65 dB from 20 Hz to 18 kHz

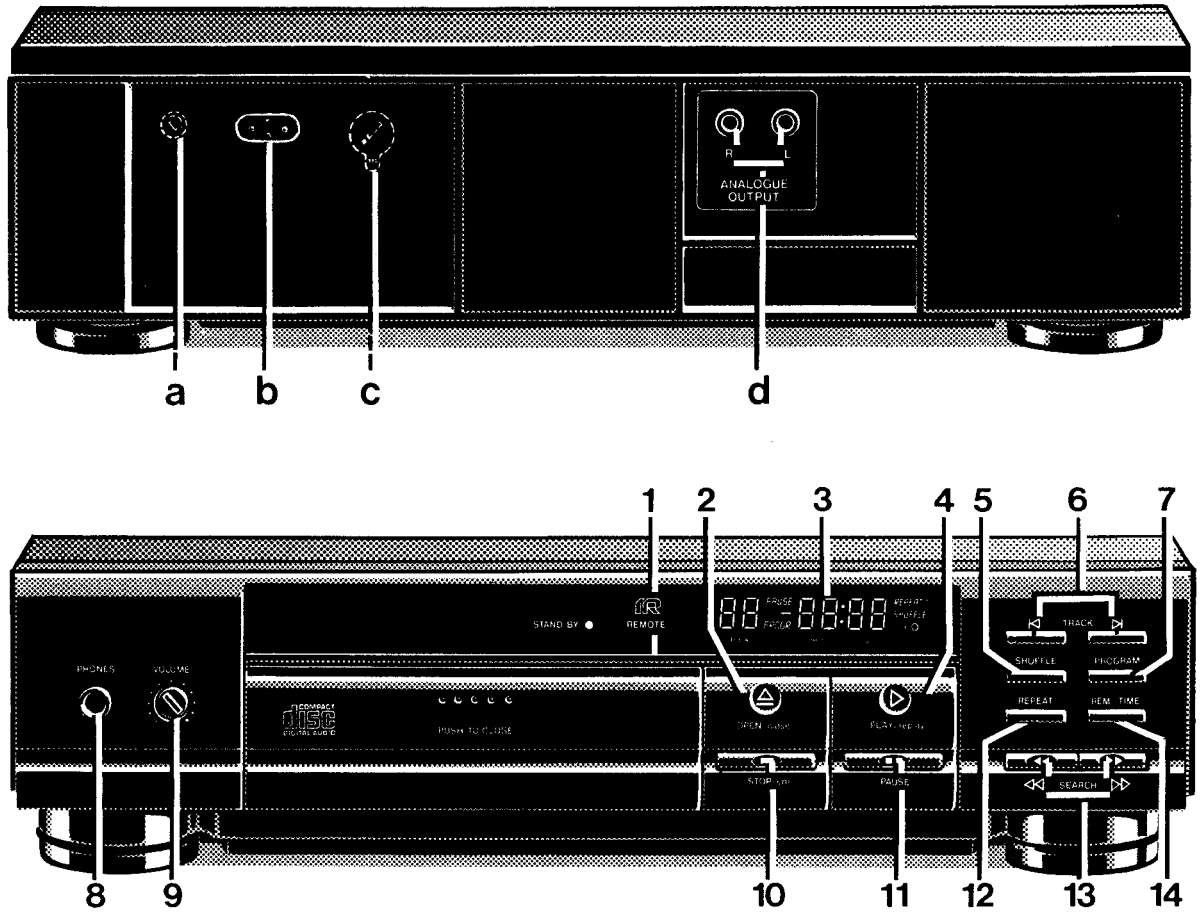
Dimensions ans weight

1. Apparatus tray closed	WxDxM	: 360 x 280 x 90/100 mm
2. Apparatus tray open	WxDxM	: 360 x 445 x 90/100 mm
3. Weight		: 3,3 kg

Optical read-out system

Laser type	: Semiconductor AlGaAs
Wave length	: 780 nm ± 20 nm
Light output (c.w.)	: 0,4 mW ± 0,04 mW

CONTROLS AND CONNECTIONS



45 187 A11

OPERATION

KEYS

1 IR-REMOTE
2 OPEN/close
3 DISPLAY
4 PLAY/replay
5 SHUFFLE
6 ⏮ TRACK ⏭
7 PROGRAM
8 PHONES
9 VOLUME
10 STOP/cm
11 PAUZE
12 REPEAT
13 ⏪ SEARCH ⏩
14 REM(aining) TIME

CONNECTIONS

a. Mains fuse holder
b. Mains lead
c. Voltage selector
d. Analogue output

3. SERVICING HINTS

When the tray mechanism and CDM-unit has been disassembled the player can be prepared for measurements by bridging or activating the "laser safety switch" SK3 on the photo diode signal controller panel.

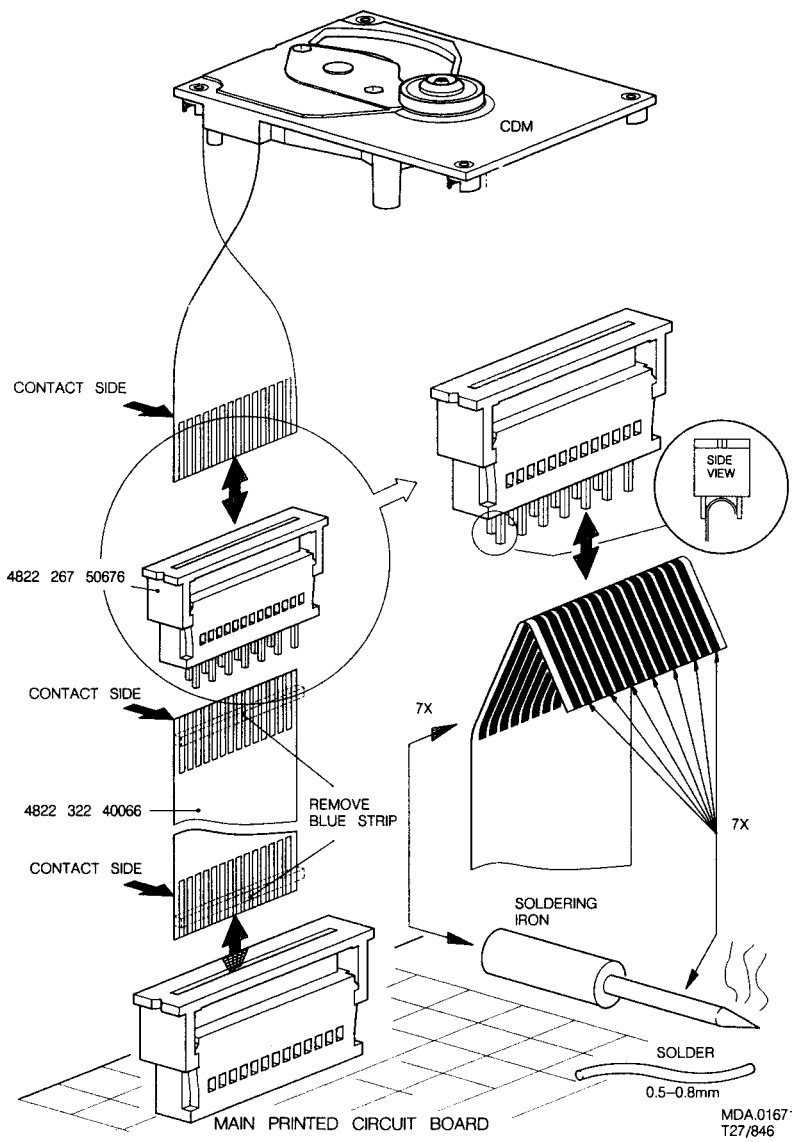
Service disc hold-down

The disc should always rest properly on the turntable. To achieve this a disc hold–down has been mounted in a bracket of the tray mechanism.
If the tray mechanism has to be disassembled for servicing, a separate disc hold-down should be used. For a service disc hold–down see the figure below.
Compose a service Disc hold-down in the following way.
- Cut in the most inner ring of a disc holddown (4822 462 50383) with small and sharp nippers See fig. below.
- Enlarge the diameter of the innermost ring slightly with the hind part of a pencil or ballpoint, so that it jams onto the turntable with sufficient force.
- If the jamming force decreases after certain time of use, the diameter has to be enlarged with a pencil or ballpoint again.

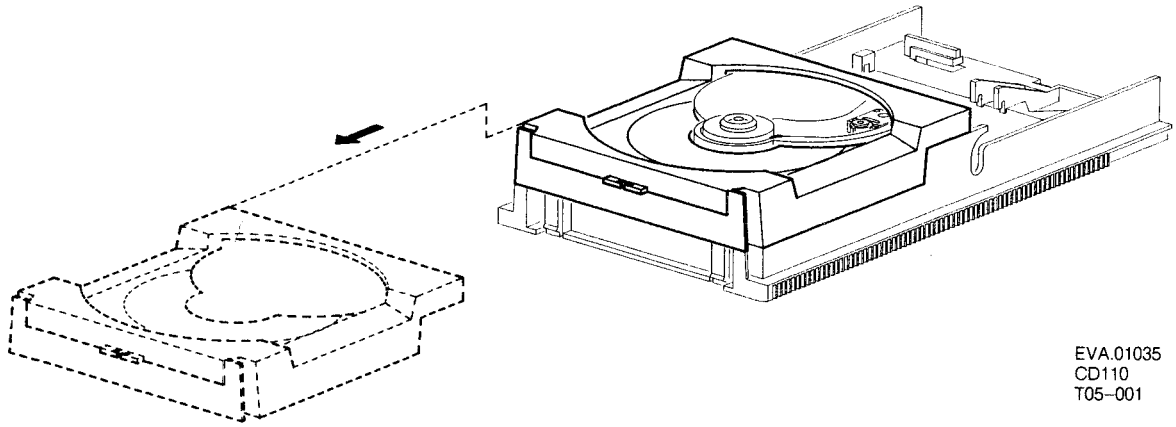
SERVICE TOOLS

Audio signal disc	4822 397 30184
Disc without errors (test disc 5) + disc with DO errors, black spots and fingerprints (test disc 5A	4822 397 30096
Disc (65 min 1kHz)without pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204
Service cable (4p)	4822 321 21284
Service flexfoil (14p)	4822 322 40066
Service connector (14p)	4822 267 50676
Green LED CQY G11	5322 130 32182
Infra red remote control e.g.	4822 218 10324

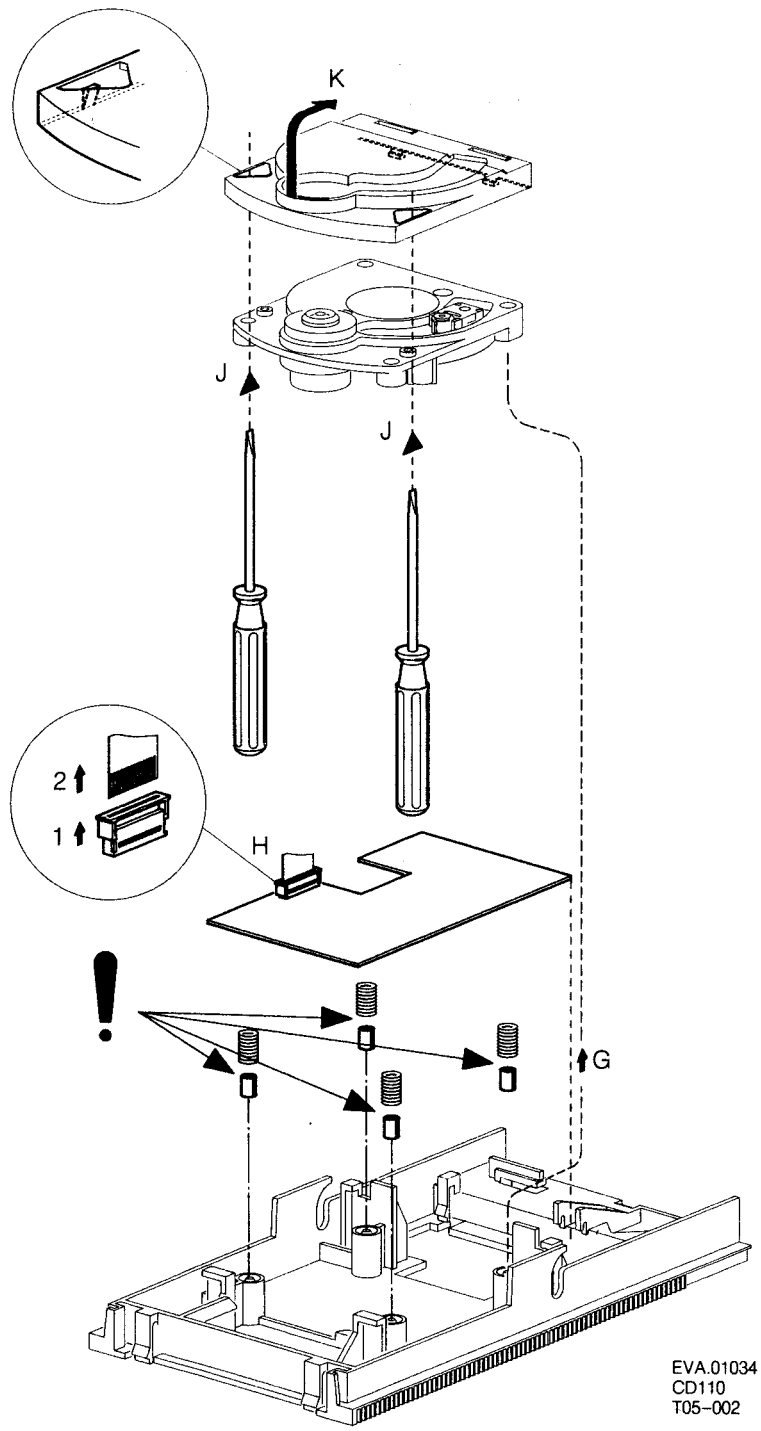
EXTENSION CABLE



DEMOUNTING CDM



EVA.01035
CD110
T05–001



EVA.01034
CD110
T05–002

MECHANICAL PARTSLIST

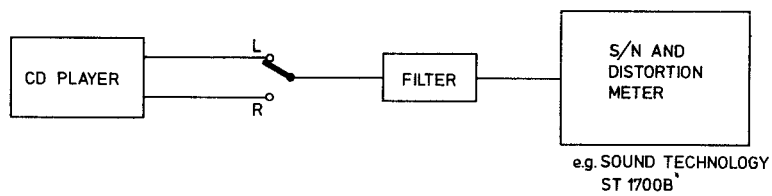
101	4822 444 60678	
102	4822 459 10806	
103	4822 450 61528	for CD110
103	4822 450 61529	for CD140
104	4822 321 10522	for /05B
105	4822 218 10324	for CD140
106	4822 410 60594	
107	4822 444 40358	for CD110
107	4822 444 40359	for CD140
108	4822 321 10457	for /00B
109	4822 444 40357	
110	4822 410 60593	
113	4822 321 22832	
114	4822 464 50792	
115	4822 402 61323	
116	4822 492 52159	
117	4822 535 93054	
118	4822 492 33145	
119	4822 492 51902	
120	4822 466 61587	
121	4822 444 50628	
122	4822 466 92841	
123	4822 528 90639	
124	4822 444 60681	
125	4822 454 30438	
126	4822 691 30209	
127	4822 402 61322	
128	4822 492 51935	
129	4822 532 51756	
130	4822 528 81329	
131	4822 358 10115	
132	4822 462 41652	
133	4822 361 21258	
134	4822 444 60679	

D-6 SPECIFICATIONS MEASUREMENT

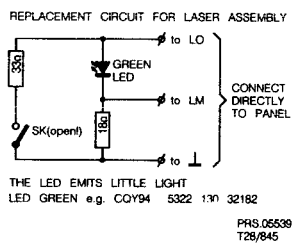
Signal	Mode	◇	▭	⏢	Remarks
BU2-L	Test disc 3, play, total harmonic distorsion	filter output	See technial data		See drawing 30459A12
BU2-R	Test disc 3, play, total harmonic distorsion	filter output	See technial data		See drawing 30459A12
BU2-L	Test disc 3, play signal-to-noise ratio	filter output	See technial data		See drawing 30459A12
BU2-R	Test disc 3, play signal-to-noise ratio	filter output	See technial data		See drawing 30459A12

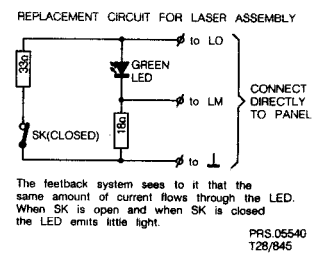
T-22387M

Filter = 13th order filter 4822 395 30204



30 459 A12




REPLACEMENT CIRCUIT FOR LASER ASSEMBLY
33Ω
GREEN LED
SK(CLOSED)
18Ω
to LO
to LM
to ⊥
CONNECT DIRECTLY TO PANEL
The feetback system sees to it that the same amount of current flows through the LED. When SK is open and when SK is closed the LED emits little light.
PRS.05540
T28/845

ERROR CODE TABLE

SYSTEM ERRORS

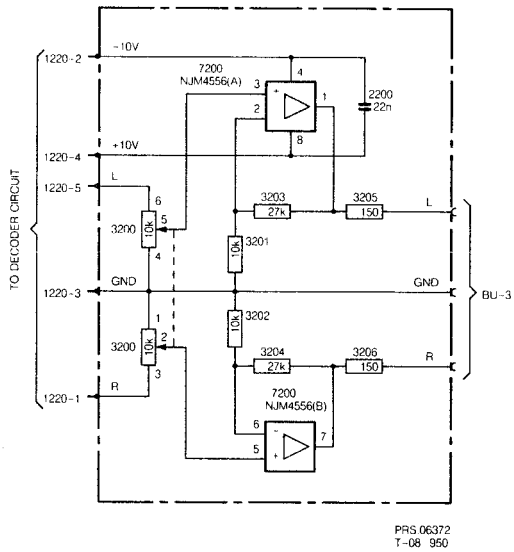
ERROR 02	Focus error
ERROR 03	Radial error
ERROR 04	Disc error: DRD becomes not low
ERROR 06	Jump error
ERROR 07	Subcode error
ERROR 08	TOC error

OPERATING ERRORS

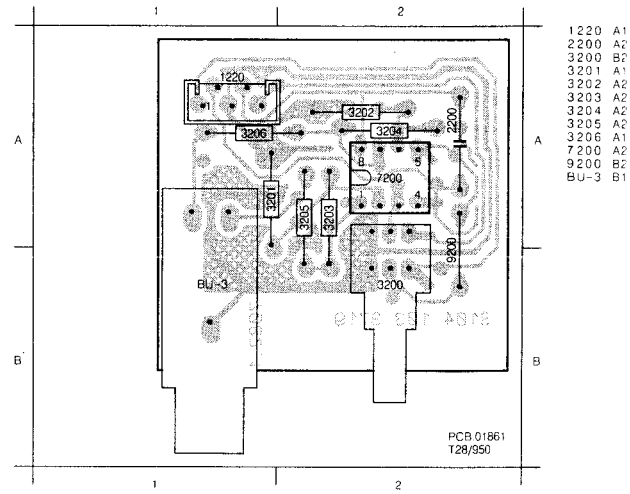
ERROR 31	Search time out error
ERROR 32	Binary search time out error
ERROR 33	Index not found
ERROR 34	Relative time not found
ERROR 36	Programmed track is not existing on this CD
ERROR 37	Selected track is not existing on this CD
ERROR 38	Next at a boarder when repeat is off
ERROR 39	Previous at a boarder when repeat is off
ERROR 41	No program
ERROR 42	Program memory full

ACLR – µP interface register clear input
AGC – Automatic Gain Control
AOL-R – Analoque output left-right
B0-B3 – Control bits for radial circuit
BCK – Bit clock input
BEQ – Equalizer reference current input
BGC – DC and LF gain control reference input
BPA-C – Display backplane A-C
C16M1 – 1/2 divider input
CAS – Column address strobe signal output
Cosc1 – Capacitor wobble oscillator
Cosc2 – Capacitor wobble oscillator
CS – Chip select
D1-D4 – Photodiode currents
DASEL1-4 – DAC interface format select
DATA – Data input
DEC – Decoupling input internal bypass
DET – HF detector voltage input
DI – Serial data input
DISBL – Display blank
DISENA-B – Disenable A-B
DISCLK – Display clock
DISDAT – Display data
DIV4 – Divide by 4 input
DLRCK – Left/right channel clock
DO1 – Dual DAC Rch serial data output
$\overline{\text{DOBSEL}}$ – Data bit select
$\overline{\text{DODS}}$ – Drop out detector suppression
DRD – 8/12 cm Disc detection
DSCK – Data shift clock to DAC
EFFK – EFM frame clock output
EMP – Emphasis flag output
EST2 – Error status 2
FE – Focus error signal
FE lag – Focus error signal for LAG network
FS – Focus starting current
GCHF – Gain control input of HF amplifier
GCLF – Gain control input for AC and LF amplifiers
HF – HF output for DEMOD
HFD – HF detector output for DEMOD
HF-out – HF amplifier and equalizer voltage output
IREF – Current reference
KBSCO-5 – Keyboard scanning 0-5
LM – Laser monitor diode input
LO – Laser amplifier current output
LPF – PLL loop filter
MCK – µP interface shift clock input
MLA – µP interface data latch clock input
MSD – µP interface serial data input
PLLH – PLL on hold output
PWM – Disk motor driving output
RADO-7 – Address output
RAD – Radial drive input
$\overline{\text{RADout}}$ – output of RE2-RE1 input
$\overline{\text{RAS}}$ – Row address strobe signal output
RDB1-4 – Data input/output
RE – Radial error signal (Amplified RE_2-RE_1 currents)
RE1 – Radial error signal 1 (summation of amplified currents D_3 and D_4
RE2 – Radial error signal 2 (summation of amplified currents D_1 and D_2
RE dig – Radial error digital
REin – Radial error input
RE lag – Radial error signal for LAG network
Rosc – Resistor wobble oscillator
Rwob – Wobble generator input
SA1-SC4 – 12 multiplexed outputs
Sc – Starting up capacitor input
SCCK – Shift clock input for serial subcode data output
SCINT – Interrupt output of subcode Q
SCOE1 – Enable input of subcode T
SIN – Tray switch
Si/$\overline{\text{RD}}$ – On/off control for laser supply and focus circuit. Ready signal, Starting up procedure succesfull.
SK – Serial clock input
SQRCK – Subcode Q register
SQRO – Subcode Q register output
$\overline{\text{TEST1}}$ – Test control input
$\overline{\text{TL}}$ – Track loss output signal
TLC – Output from slice level control
TTM – Control voltage for turntable motor
Vext+ – Supply connection
Vext– – Supply connection
$\overline{\text{VLCD}}$ – Supply liquid crystal display
$\overline{\text{WE}}$ – Write enable output
WS – Word select input
XI – Crystal oscillator input
XO – Crystal oscillator output

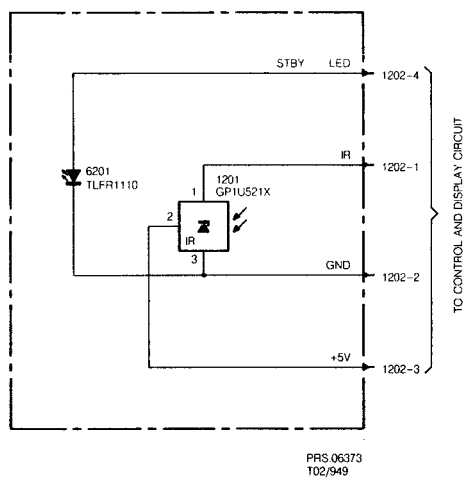
VARIABLE HEADPHONE



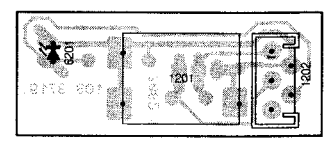
PRS.06372
T-08 950



I.R. REMOTE CONTROL



PRS.06373
T02/949



PCB 01862
T28/950

ELECTRICAL PARTSLIST

DECODER PANEL

Miscellaneous

BU1	4822 265 20291	MAINS INLET
BU2	4822 267 31171	
	4822 256 30274	FUSE HOLDER

Crystal

1571	4822 242 73557	4,00 MHz
1601	4822 242 72527	4,00 MHz CERAMIC RESONATOR

Capacitors

2530	4822 121 43375	220nF 63V
2531	4822 121 51321	8,2µF 1% 63V
2532	4822 121 51321	8,2µF 1% 63V
2533	4822 124 40272	33µF 20% 16V
2534	5322 121 42604	47nF 5% 63V
2535	5322 121 42661	330nF 5% 63V
2536	4822 121 43375	220nF 10% 63V
2537	4822 122 33342	33nF 10% 63V
2538	4822 122 33342	33nF 10% 63V
2560	5322 122 31866	6,8nF 10% 63V
2561	5322 122 31866	6,8nF 10% 63V
2562	4822 122 33496	100nF 10% 63V
2570	5322 122 32452	47pF 5% 50V
2571	4822 122 33175	2,2nF 20% 50V
2572	4822 122 33809	22nF 20% 50V
2574	4822 124 40272	33µF 20% 16V
2575	5322 121 42661	330nF 5% 63V
2576	4822 122 33219	470pF 5% 50V
2577	4822 121 41738	270nF 5% 63V
2582	4822 122 33809	22nF 20% 50V
2584	4822 122 10166	22nF 30% 16V
2586	4822 124 40242	1µF 20% 63V
2601	4822 122 33809	22nF 20% 50V
2602	4822 124 41577	4,7µF 20% 50V
2610	4822 122 33809	22nF 20% 50V
2611	4822 122 33809	22nF 20% 50V
2612	4822 122 33496	100nF 10% 63V
2640	4822 124 40196	220µF 20% 16V
2641	4822 122 33809	22nF 20% 50V
2650	4822 121 42888	27nF 5% 50V
2651	4822 121 42888	27nF 5% 50V
2652	4822 121 51311	1,8nF 5% 50V
2653	4822 121 51311	1,8nF 5% 50V
2660	4822 121 43651	1,5nF 5% 50V
2661	4822 121 43651	1,5nF 5% 50V
2662	4822 121 51313	3,9µF 5% 50V
2663	4822 121 51313	3,9µF 5% 50V
2664	4822 121 51324	1nF 5% 50V
2665	4822 121 51324	1nF 5% 50V
2668	4822 122 33809	22nF 20% 50V
2669	4822 122 33809	22nF 20% 50V
2670	4822 124 41577	4,7µF 20% 50V
2671	4822 124 41577	4,7µF 20% 50V
2680	4822 124 40272	33µF 20% 16V
2681	4822 124 40272	33µF 20% 16V
2682	4822 124 40196	220µF 20% 16V
2760	4822 122 33809	22nF 20% 50V
2761	4822 122 33809	22nF 20% 50V
2762	4822 124 23268	3300µF 20% 16V
2763	4822 124 40272	33µF 20% 16V
2770	4822 122 33809	22nF 20% 50V
2771	4822 122 33809	22nF 20% 50V
2772	4822 124 41853	1000µF 16V
2773	4822 124 40272	33µF 20% 16V

Resistors

3530	4822 116 52857	47k 1% 0,6W
3531	4822 116 53083	15k 1% 0,6W
3532	4822 111 30499	4Ω7 5% 0,33W
3533	4822 050 11802	1k8 1% 0,4W
3534	4822 050 25102	5k1 1% 0,6W
3535	4822 050 11803	18k 1% 0,4W
3536	4822 050 22204	220k 1% 0,6W
3537	4822 050 22204	220k 1% 0,6W
3538	4822 111 30499	4Ω7 5% 0,33W
3539	4822 050 11203	12k 1% 0,4W
3540	4822 051 10223	22k 2% 0,25W
3560	4822 116 52234	100k 5% 0,5W
3561	4822 116 52234	100k 5% 0,5W
3562	4822 111 91518	100k 5% 0,1W
3563	4822 116 52234	100k 5% 0,5W
3564	4822 111 30517	22Ω 5% 0,33W
3570	4822 111 91522	2k2 5% 0,1W
3571	4822 111 30499	4Ω7 5% 0,33W
3572	4822 111 91523	22k 5% 0,1W
3573	4822 116 53108	1k 1% 0,6W
3574	4822 050 21204	120k 1% 0,6W
3575	4822 116 52921	4k7 1% 0,6W
3580	4822 051 10102	1k 2% 0,25W
3581	4822 051 20475	4M7 5% 0,1W
3583	4822 050 21502	1k5 1% 0,6W
3585	4822 111 30499	4Ω7 5% 0,33W
3586	4822 111 30499	4Ω7 5% 0,33W
3587	4822 116 80881	220k 5% 0,1W
3590	4822 111 91523	22k 5% 0,1W
3591	4822 111 91523	22k 5% 0,1W
3592	5322 111 91484	10k 2% 0,2W NETWORK
3596	4822 051 10223	22k 2% 0,25W
3597	4822 116 53108	1k 1% 0,6W
3598	4822 116 53108	1k 1% 0,6W
3599	4822 051 10102	1k 2% 0,25W
3601	4822 111 30499	4Ω7 5% 0,33W
3602	4822 051 10223	22k 2% 0,25W
3603	4822 116 80881	220k 5% 0,1W
3610	4822 050 21203	12k 1% 0,6W
3611	4822 116 52921	4k7 1% 0,6W
3612	4822 050 21203	12k 1% 0,6W
3613	4822 050 21203	12k 1% 0,6W
3614	4822 050 21203	12k 1% 0,6W
3615	4822 111 30483	1Ω 5% 0,33W
3616	4822 111 30483	1Ω 5% 0,33W
3617	4822 111 30517	22Ω 5% 0,33W
3620	4822 116 52244	15k 5% 0,5W
3621	4822 116 53108	1k 1% 0,6W
3622	4822 111 90249	10k 2% 0,25W
3623	4822 116 53108	1k 1% 0,6W
3640	4822 111 30499	4Ω7 5% 0,33W
3641	4822 051 20242	2k4 5% 0,1W
3650	4822 051 10223	22k 2% 0,25W
3651	4822 111 91532	4k7 5% 0,06W
3652	4822 111 91523	22k 5% 0,1W
3653	4822 111 90249	10k 2% 0,25W
3654	4822 051 10102	1k 2% 0,25W
3655	4822 051 10102	1k 2% 0,25W
3656	4822 051 10561	560Ω 2% 0,25W
3657	4822 051 10561	560Ω 2% 0,25W
3658	4822 051 20475	4M7 5% 0,1W
3659	4822 051 20475	4M7 5% 0,1W
3660	4822 051 20242	2k4 5% 0,1W
3661	4822 051 20242	2k4 5% 0,1W
3662	4822 051 10122	1k2 2% 0,25W

3663	4822 051 10122	1k2 2% 0,25W
3664	4822 051 10122	1k2 2% 0,25W
3665	4822 051 10122	1k2 2% 0,25W
3666	4822 051 20242	2k4 5% 0,1W
3667	4822 051 20242	2k4 5% 0,1W
3668	4822 051 10122	1k2 2% 0,25W
3669	4822 051 10122	1k2 2% 0,25W
3670	4822 111 30508	10Ω 5% 0,33W
3671	4822 111 30508	10Ω 5% 0,33W
3672	4822 111 91523	22k 5% 0,1W
3673	4822 111 91523	22k 5% 0,1W
3676	4822 051 10102	1k 2% 0,25W
3677	4822 051 10102	1k 2% 0,25W
3680	4822 051 10681	680Ω 2% 0,25W
3681	4822 111 91523	22k 5% 0,1W
3682	4822 051 10102	1k 2% 0,25W
3683	4822 051 10102	1k 2% 0,25W
3684	4822 050 25603	56k 1% 0,6W
3688	4822 111 91522	2k2 5% 0,1W
3689	4822 116 53025	2k2 1% 0,6W
3700	4822 116 52857	47k 5% 0,125W
3701	4822 116 52461	18k 5% 0,125W
3702	4822 116 52461	18k 5% 0,125W
3710	4822 111 90249	10k 5% 0,125W
3711	4822 111 91517	10k 5% 0,1W
3720	4822 051 10151	150Ω 2% 0,25W
3721	4822 051 10151	150Ω 2% 0,25W
3800	4822 111 90163	jumper
3802	4822 111 90163	jumper
3803	4822 111 90163	jumper
3807	4822 111 90163	jumper
3808	4822 111 90163	jumper
3810	4822 111 90163	jumper
3814	4822 111 90163	jumper
3815	4822 111 90163	jumper
3818	4822 111 90163	jumper

5660	4822 157 60363	ANTI INTERFERENCE COIL

6001	4822 130 31554	BZX55-C4V3
6002	4822 130 81011	LT9320H2
6570	4822 130 30621	1N4148
6600	5322 130 30684	1N4002
6610	5322 130 30684	1N4002
6611	5322 130 30684	1N4002
6620	4822 130 30621	1N4148
6621	4822 130 34174	BZX55-C4V7
6680	5322 130 30684	1N4002
6681	5322 130 30684	1N4002
6682	5322 130 30684	1N4002
6683	5322 130 30684	1N4002
6684	4822 130 30861	BZX55-C7V5
6760	5322 130 30684	1N4002
6761	5322 130 30684	1N4002
6770	5322 130 30684	1N4002
6771	5322 130 30684	1N4002
7530	4822 209 73235	TDA8809T/C2
7560	4822 209 72587	TCA0372DP2
7570	4822 209 62112	M50423FP
7575	4822 209 70422	MN4264-15
7590	4822 209 62208	MC68HC05C8P/9411
7620	4822 209 80797	LM393N
7640	4822 209 73236	TDA1543/N2
7650	4822 130 61207	BC848
7651	5322 130 42012	BC858
7652	4822 130 61207	BC848
7653	4822 130 61207	BC848
7660	4822 209 83163	LM833N
7661	4822 209 83163	LM833N
7680	5322 130 42012	BC858
7684	4822 130 61207	BC848
7685	4822 130 61207	BC848
7700	4822 130 61207	BC848
7710	5322 130 42012	BC858
7720	4822 209 83274	NJM4560D
7760	4822 209 71579	TY40408
7770	4822 209 73233	MC79L05ACP

PHOTO DIODE SIGNAL CONTROLLER PANEL

Miscellaneous

SK3	4822 276 12523	

Capacitors

2500	4822 122 33809	22nF 20% 50V
2501	4822 122 33809	22nF 20% 50V
2502	5322 122 32268	470pF 10% 50V
2503	4822 122 33809	22nF 20% 50V
2504	4822 122 33175	2,2nF 20% 50V
2505	5322 121 42604	47nF 5% 63V
2506	5322 122 32531	100pF 5% 50V
2507	4822 122 33177	10nF 20% 50V
2508	5322 122 34123	1nF 10% 50V
2509	4822 121 43375	220nF 10% 63V
2510	4822 121 51252	470nF 5% 63V
2511	5322 122 34123	1nF 10% 50V
2514	4822 121 51252	470nF 5% 63V
2515	4822 122 33339	4,7nF 10% 50V
2516	5322 121 42661	330nF 5% 63V
2517	4822 122 33496	100nF 10% 63V
2540	4822 122 33809	22nF 20% 50V
2541	4822 122 33809	22nF 20% 50V
2542	4822 124 41583	0,68µF 20% 50V Bipolar
2543	4822 122 33496	100nF 10% 63V
2550	4822 122 32575	220pF 10% 500V
2551	4822 124 40272	33µF 20% 16V

Resistors

3500	4822 116 52921	4k7 1% 0,6W
3501	4822 111 91518	100k 5% 0,1W
3502	4822 051 20123	12k 5% 0,1W
3503	4822 116 90441	100Ω 5% 0,1W
3504	4822 051 10102	1k 2% 0,25W
3505	4822 051 20243	24k 5% 0,1W
3506	4822 111 91534	5k6 5% 0,06W
3507	4822 111 91517	10k 5% 0,1W
3510	4822 051 20113	11k 5% 0,1W
3511	4822 050 11204	120k 1% 0,4W
3512	4822 051 20154	150k 5% 0,1W
3513	4822 116 52866	82k 1% 0,6W
3514	4822 051 20164	160k 5% 0,1W
3515	4822 100 11193	22k 20%LIN 0,05W Trimpot
3516	4822 050 24704	470k 1% 0,6W
3517	4822 111 91535	56k 5% 0,06W
3518	4822 050 12749	27Ω 1% 0,4W
3519	4822 111 30517	22Ω 5% 0,33W
3541	4822 050 16802	6k8 1% 0,4W
3542	4822 116 52441	6k8 5% 0,5W
3543	4822 111 30483	1Ω 5% 0,33W
3544	4822 111 30483	1Ω 5% 0,33W
3545	4822 116 90471	33Ω 5% 0,1W
3546	4822 111 30499	4Ω7 5% 0,33W
3550	4822 111 30515	18Ω 5% 0,33W
3551	4822 111 30511	12Ω 5% 0,33W
3552	4822 116 90441	100Ω 5% 0,1W
3553	4822 116 53025	2k2 1% 0,6W
3554	4822 111 90178	220Ω 2% 0,25W
3555	4822 101 10685	4k7 20%LIN 0,05W Trimpot
3806	4822 111 90163	jumper
3816	4822 111 90163	jumper
3817	4822 111 90163	jumper
3820	4822 111 90163	jumper

Semiconductors

6540	4822 130 34173	BZX55-F5V6
6541	4822 130 34173	BZX55-F5V6
6550	4822 130 30621	1N4148
7500	4822 209 73234	TDA8808T/C3
7510	4822 209 72587	TCA0372DP2
7550	4822 130 44121	BC338

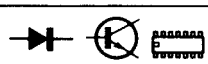
CONTROL AND DISPLAY PANEL

Miscellaneous

SK..	4822 276 12276	
	4822 256 91613	LCD HOLDER
1030	4822 130 90819	LPH-1958-1

2001	4822 122 33809	22nF 20% 50V

3001	4822 050 21501	150Ω 1% 0,6W
3002	4822 111 91523	22k 5% 0,1W
3003	4822 111 91523	22k 5% 0,1W
3004	4822 111 91523	22k 5% 0,1W
3005	4822 111 91523	22k 5% 0,1W
3006	4822 116 80887	68Ω 5% 0,1W
3007	4822 116 80887	68Ω 5% 0,1W
3008	4822 116 80887	68Ω 5% 0,1W
3009	4822 050 26201	620Ω 1% 0,6W
3010	4822 116 90446	470Ω 5% 0,1W
3011	4822 051 20242	2k4 5% 0,1W
3012	4822 116 52224	470Ω 5% 0,5W
3013	4822 050 23302	3k3 1% 0,6W
3850	4822 111 90163	jumper
3851	4822 111 90163	jumper
3852	4822 111 90163	jumper
3853	4822 111 90163	jumper
3854	4822 111 90163	jumper
3855	4822 111 90163	jumper
3856	4822 111 90163	jumper



7001	4822 209 62209	COP472WM-3
7002	4822 209 62209	COP472WM-3
7003	4822 130 61207	BC848
7004	4822 130 61207	BC848
7005	4822 130 61207	BC848
7006	4822 130 61207	BC848
7007	4822 130 61207	BC848

VARIABLE HEADPHONE PANEL

Miscellaneous

BU3	4822 267 30743	
3200	4822 102 10398	10k LOG CARBPOT

2200	4822 122 10166	22nF 30% 16V

3201	4822 111 90249	10k 2% 0,25W
3202	4822 111 90249	10k 2% 0,25W
3203	4822 116 52264	27k 5% 0,5W
3204	4822 116 52264	27k 5% 0,5W
3205	4822 050 21201	120Ω 1% 0,6W
3206	4822 050 21201	120Ω 1% 0,6W

7200	4822 209 82362	NJM4556D

I.R. REMOTE CONTROL PANEL

6201	4822 130 33528	TLFR1110
7201	4822 214 51772	GP1U521X

MISCELLANEOUS

1501	4822 070 31001	FUSE 100mAT
5500	4822 146 30857	MAINSTRANSFORMER

Quelle Technischer Kundendienst 066.5562

BESTELL-NR.	0665562
GERAETEBEZEICHNUNG	PHILIPS-CD-PLAYER
WARENGATTUNG	656
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	
PRIVILEG	CD 140
LIEFERANTEN-NR.	611261
PREIS	429.00
KATALOG	905-905
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINSE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1				
2			DIE TECHNISCHE UNTERLAGE WIRD	
3			NUR AN DIE LEITSTELLE VERTEILT	
4			STUETZPUNKTE MUESSEN BEI BEDAR	
5			DIE TU VON DORT AUSLEIHEN.	
6			ERSATZTEILE SIND DIREKT UEBER	
7			DIE FIRMA PHILIPS ZU BESTELLEN	
			ENDE	

Quelle Technischer Kundendienst 066.3773

BESTELL-NR.	0663773
GERAETEBEZEICHNUNG	PHILIPS-CD-PLAYER
WARENGATTUNG	656
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	
PRIVILEG	CD 140
LIEFERANTEN-NR.	611261
PREIS	449.00
KATALOG	904
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1				
2			DIE TECHNISCHE UNTERLAGE WIRD	
3			NUR AN DIE LEITSTELLE VERTEILT	
4			STUETZPUNKTE MUESSEN BEI BEDAR	
5			DIE TU VON DORT AUSLEIHEN.	
6			ERSATZTEILE SIND DIREKT UEBER	
7			DIE FIRMA PHILIPS ZU BESTELLEN	
			ENDE	

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H/W 90/91 Aug. 90

Quelle Technischer Kundendienst 066.2866

BESTELL-NR.	0662866
GERAETEBEZEICHNUNG	PHILIPS-CD-PLAYER
WARENGATTUNG	656
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	
PRIVILEG	CD 110
LIEFERANTEN-NR.	611261
PREIS	399.00
KATALOG	905-905
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1				
2			DIE TECHNISCHE UNTERLAGE WIRD	
3			NUR AN DIE LEITSTELLE VERTEILT	
4			STUETZPUNKTE MUESSEN BEI BEDAR	
5			DIE TU VON DORT AUSLEIHEN.	
6			ERSATZTEILE SIND DIREKT UEBER	
7			DIE FIRMA PHILIPS ZU BESTELLEN	
			ENDE	

700-451/1184

Quelle Technischer Kundendienst 066.2874

BESTELL-NR.	0662874
GERAETEBEZEICHNUNG	PHILIPS-CD-PLAYER
WARENGATTUNG	656
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	
PRIVILEG	CD 110
LIEFERANTEN-NR.	611261
PREIS	399.00
KATALOG	905-905
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1				
2			DIE TECHNISCHE UNTERLAGE WIRD	
3			NUR AN DIE LEITSTELLE VERTEILT	
4			STUETZPUNKTE MUESSEN BEI BEDAR	
5			DIE TU VON DORT AUSLEIHEN.	
6			ERSATZTEILE SIND DIREKT UEBER	
7			DIE FIRMA PHILIPS ZU BESTELLEN	
			ENDE	

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Änderungen vorbehalten
H/W 90/91 Aug. 90
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Quelle Technischer Kundendienst 066.2882

BESTELL-NR.	0662882
GERAETEBEZEICHNUNG	PHILIPS-CD-PLAYER
WARENGATTUNG	656
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	
PRIVILEG	CD 110
LIEFERANTEN-NR.	611261
PREIS	399.00
KATALOG	905-905
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1				
2			DIE TECHNISCHE UNTERLAGE WIRD	
3			NUR AN DIE LEITSTELLE VERTEILT	
4			STUETZPUNKTE MUESSEN BEI BEDAR	
5			DIE TU VON DORT AUSLEIHEN.	
6			ERSATZTEILE SIND DIREKT UEBER	
7			DIE FIRMA PHILIPS ZU BESTELLEN	
			ENDE	

Quelle Technischer Kundendienst 066.2890

BESTELL-NR.	0662890
GERAETEBEZEICHNUNG	PHILIPS-CD-PLAYER
WARENGATTUNG	656
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	
PRIVILEG	CD 140
LIEFERANTEN-NR.	611261
PREIS	429.00
KATALOG	905-905
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1				
2			DIE TECHNISCHE UNTERLAGE WIRD	
3			NUR AN DIE LEITSTELLE VERTEILT	
4			STUETZPUNKTE MUESSEN BEI BEDAR	
5			DIE TU VON DORT AUSLEIHEN.	
6			ERSATZTEILE SIND DIREKT UEBER	
7			DIE FIRMA PHILIPS ZU BESTELLEN	
			ENDE	

6700-451/1184

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Quelle Technischer Kundendienst 066.3534

BESTELL-NR.	0663534
GERAETEBEZEICHNUNG	PHILIPS-CD-PLAYER
WARENGATTUNG	656
AUSFUEHRUNGS-NR.	001
GERAETEBESCHREIBUNG	
PRIVILEG	CD 140
LIEFERANTEN-NR.	611261
PREIS	429.00
KATALOG	904
GARANTIEZEIT	6
KD-SEKTOR	R
HEIM/BRINGE	WERKSTATT
BETREUUNG	EIGEN
KOSTENTRAEGER	EIGEN
REPARATURFAEHIG	JA

ZEILE	POSITION	SYM	BEZEICHNUNG	ET-NUMMER
1				
2			DIE TECHNISCHE UNTERLAGE WIRD	
3			NUR AN DIE LEITSTELLE VERTEILT	
4			STUETZPUNKTE MUESSEN BEI BEDAR	
5			DIE TU VON DORT AUSLEIHEN.	
6			ERSATZTEILE SIND DIREKT UEBER	
7			DIE FIRMA PHILIPS ZU BESTELLEN	
			ENDE	

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